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Final Report

Design and Test of Grid Devices to Improve Size and Species Selectivity in the Gulf of Maine Multispecies Trawl Fishery

Submitted to:

The Northeast Consortium
142 Morse Hall
University of New Hampshire
Durham, NH 03824

November 2006 **UNH-FISH-REP-2006-037**

Project Title: Design and Test of Grid Devices to Improve Size and Species Selectivity in the Gulf of Maine Multispecies Trawl Fishery

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Date submitted: November 30, 2006

You may cite this report as:
He, P. (2006). Design and Test of Grid Devices to Improve Size and Species Selectivity in the Gulf of Maine Multispecies Trawl Fishery Submitted to the Northeast Consortium. Final Report submitted to the Northeast Consortium. University of New Hampshire, Durham, NH. UNH-FISH-REP-2006-037. 48 p + appendices.

UNH-FISH-REP-2006-037

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Design and Test of Grid Devices to Improve Size and Species Selectivity in the Gulf of Maine Multispecies Trawl Fishery

Summary. Excessive catch of cod in flounder trawls increases cod discards and discard mortality, and impedes recovery of cod stocks in Gulf of Maine and Georges Bank. Successful separation of cod from flounders during capture processes will therefore reduce discards of cod, thereby reducing unnecessary and unaccounted fishing mortality. Species separation trawls will also allow fishermen to continue to fish for flounders under limited daily cod landing limit. This project involved design, flume tank testing, and sea trials of various grid devices to separate species of groundfish during trawling. Modifications were made using flume tank testing and sea trials. We describe methodologies and results from tank tests and sea trials, and discuss potential of selected devices and their application for use in the Northeast multispecies fisheries. Three main types of grid devices were tested, high density polyethylene (HDPE), stainless steel, and plastic over steel RollerGrid. The 105 mm horizontal RollerGrid has potential for separating roundfish and flounders, while the 90 mm RollerGrid and the 90 mm diagonal grid have potential for size selective harvesting of monkfishes. We also discuss experiences in working with the fishing industry in achieving conservation and sustainable utilization of fisheries resources.

1. INTRODUCTION

Nineteen stocks of twelve groundfish species in New England are managed together by the New England Fishery Management Council (NEFMC) and National Marine Fisheries Service (NMFS). Some stocks showed improved status while others are still under heavy fishing pressure and are still overfished (Figure1). Targeting healthy species/stocks while avoiding those overfished species/stock became a priory in management measures proposed by NEFMC and subsequently adopted by the NMFS in Amendment 13 and subsequent Framework Adjustments to the Northeast Multispecies

Fishery Management Plans (NEFMC, 2004; 2006). One of the measures is to limit the daily landing of the Atlantic cod (*Gadus morhua*) to 400 pounds in 2001 fishing year, and 500 pounds in 2003, 800 lbs in 2004, and 600 lbs since May 2005. At times, large quantities of cod are captured in one fishing operation, either as bycatch or as a directed fishery at certain locations for some fishing gears. For example, otter trawls and gillnets directing for flounder species often produce large amount of unwanted cod bycatch. Under these circumstances, the excess cod have to be released and the vessel may have to move to other fishing grounds or head back to the port. Cod released from these fishing gears suffer from varying degrees of mortality (Carr et al., 1992; Suuronen, 2005) which constitutes a waste of resource and adds uncertainties in overall fishing mortality because these released fish are not required to be reported in logbooks. Modifications to fishing gears or their operations to reduce controlled species such as cod can reduce unnecessary fishing mortality and improve economic performance of fishing operations. The Northeast Consortium has recognized the importance of bycatch reduction and improving fishing gear selectivity, and has supported this project to develop grid devices to separate cod and flounders to reduces cod discards in the Gulf of Maine and Georges Bank trawl fisheries.

Worldwide decline in marine fish stocks has generated great interests in developing species selective fishing gears targeting "healthier" stocks while leaving "depressed" stocks to recover. Species and size selectivity of fishing gears has been the main research subject in last two decades. Today, specialized fishing gears and devices are widely used to only target certain species and sizes. There are a number of approaches to separate species during fishing processes in trawls. Physical separations include mesh sizes and shapes (He, 2006) and grid devices (Hickey et al., 1995; Rose and Gauvin, 2000). Behavioral separations include separator trawls (Main and Sangster, 1982; 1985; Boudreau and Tait, 1991; Cooper, 1992; Engas et al., 1998; He et al., 2006), towing speeds (He, 1993; Glass, 2000), headline and fishing line height, amongst other means. Thompson (1993) reported a cutaway flounder trawl and was able to reduce cod catch by 38% without loss of flounders. Pol et al. (2003) tested a similar trawl design in Gulf of Maine, and was reported to reduce cod catch by more than 70%, but with a substantial loss of flounders. Selective fishing using species-specific behavioral differences, and requires good understanding of behavior of the species in addition to their physical differences (Wardle, 1983; 1986).

The project incorporates designs suited the conditions of the Gulf of Maine and Georges Bank multispecies fisheries. The design utilizes differences in shape and behavior between flounders and cod, aimed to improve size selectivity of flounders and reduce cod bycatch in flounder trawls.

The overall aim of the project was to develop a trawl codend selectivity device which retains large flounder and excludes cod and small flounders. The specific objectives of the project are to:

- Design a grid system based on differences in fish behavior and morphology between roundfish and flatfish.
- Test the design in a flume tank to verify design specifications and operational parameters;
- Build a prototype net with the selectivity device and test in the sea
- Refine and optimize design through further flume tank and sea trials
- Disseminate information on the design and results through workshops, seminars, scientific and trade magazines.

2. METHODOLOGY

2.1 Gear Design

The experimental trawl was a 120' Icelandic box trawl used for harvesting flounders in Gulf of Maine and on Georges Bank. Net and rigging plans for the trawl are shown in Figures 2-4. For the experiment trawl, the extension section is replaced by a selectivity device. Either a small mesh (3" mesh size, 3 mm diameter PE twine) cover or an identical codend was installed at the top of the extension to collect the fish released from the grid devices. Six-inch (152 mm) diamond codends were used during earlier sea trials while six-and-half-inch (165 mm) codends were used during the August 2002 trial and thereafter, due to a change in fishery regulation in May 2002. A twelve inch (305 mm) roller gear sweep was used except one trip on Georges Bank when an eighteen-inch (460 mm) roller sweep was used due to hard bottom conditions.

A number of grid devices and their variations were tested in the flume tank and at sea. Details of the grid devices are shown in Table 1.

2.2 Flume tank testing

A 1:10 scale trawl model of the whole trawl and a full scale (1:1) section of the selectivity device were constructed by the staff at the Center of Sustainable Aquatic Resources of Memorial University of Newfoundland, and was subsequently tested at its flume tank. The tank measures 21 m (67') long, 8 m (26') wide, with a water depth of 4 m (13'). Ten 2 x3 m acrylic widows provide a large field of view of the gear being tested in the tank. Strain gauges and camera equipment provide drag measurement and three-dimensional geometry of the gear in the tank. The model trawl was tested with a pair of Morgere doors, while the full scale codend and grid section was tested by attaching the section to a steel ring. The full scale section was shipped back to Portland, Maine after tank testing and was installed in a full scale trawl for sea trials. Tank tests were conducted in September 2001 and April 2002.

Capt. Bart McNeel, Capt. James Matheson of F/V "Aaron & Melissa II" and Dr. Pingguo He University of New Hampshire participated in flume tank model tests in the September 2001 tank tests. Tank tests were assisted by the staff of the Center of Sustainable Aquatic Resources. Flume tank tests provide visual assessment, geometry measurement and tension data in relation to towing speed change and modification of gear rigging. A photo graph of the full scale section of the prototype double grid device as seen from the above the tank is shown in Figure 5.

2.3 Sea Trials

Sea trials were spread out over four years, eight segments and in four fishing areas (Figure 6):

ST1:	Oct. 2001	Downeast Maine	Area 1
ST2:	April 2002	Off Portland ME	Area 2
ST3:	May 2002	Georges Bank Trip 1	Area 3
ST4:	May 2002	Georges Bank Trip 2	Area 3 & 4

ST5:	Aug. 2002	Off Portland ME	Area 2
ST6:	July 2003	Off Portland ME	Area 2
ST7:	Sept. 2003	Downeast Maine	Area 1
ST8:	June 2005	Off Portland ME	Area 2

Sea trials were not carried out in 2004 because an exempted fishing permit was not granted.

2.3.1 Vessel and crew

The vessel used for sea trials was 88' LOA F/V "Aaron & Melissa II" of Portland, ME (Figure 7). The vessel has two stern ramps and two net drums, allowing alternating tows of two different trawls without down time.

A four-member crew and at least one scientist or technician from UNH were on board the vessel during all sea trials. The crew members were very enthusiastic about the project and were very skillful in gear modification and deployment. On board welding skills allowed steel grid modification while the experiment was carried out at sea. Crew members assisted in measuring catch and bycatch.

2.3.2 Fishing gear

Fishing gear used for sea trials was a 120' Icelandic Box trawl with #11 SlimLine Bison doors (3.7 m^2) rigged for flounders in Gulf of Maine. The doors and the wingends were connected by 40 fm ground cables (20 fm wire and 20 fm 2-3/8" rubber cookies) and 20 fm of bridles (upper bridle: wire; lower bridle: 2-3/8" rubber cookies). Twelve-inch rock hopper gears were used in most trips, except a trip at southern Georges Bank where an 18" rock hopper gear was used due to frequent gear damage experienced during the previous trip. Door spread was about 232' and headline 8.9' at towing speed of 2.8 knots measured from flume tank tests. The trawl was towed at 2.8 knots for a duration of one or two hours.

Most tows were made with the experimental trawl with grid devices and retaining bags or retaining

codend (Figure 8 and 9). Only a small number of tows were made with the control gear of the exact same dimension, but without selectivity devices. The use of control gear was to "ground truth" the species and size of fish available on the ground.

Three main grid designs were tested: a high density polyethylene (HDPE) grid with 90 mm vertical bars (Figure 10), stainless steel grids (horizontal, vertical and diagonal grid bars) with 80 mm, 90 and 105 mm bar spacing (Figures 11 and 12) , and roller grids (plastic tubes over stainless steel bars) with 80, 90 and 105 mm bar spacing (Figure 13). The grids were oriented forwards or backwards.

2.3.3 Fishing grounds

Choice of fishing areas for the experimental fishing which was constrained by season, gear conflict, closed areas and rolling closures. This largely precluded areas with concentration and mixture of cod and flounders, which the grid devices were to separate. Regardless, we were able to operate in Downeast Maine, Truxton Swell, Georges Bank, and areas off Portland, Maine (Figure 6). Decisions to fish in an area were based on reports from commercial fishing operations and previous fishing experiences of the captain.

2.4 Underwater observation and video analysis

Underwater observations were carried out using a self-contained video recording unit (Mac Marine Instruments, Brier, WA) connected to a low light video camera (Super SeaCam 5000, DeepSea Power & Light, San Diego, CA) installed on a protective frame structure (Figure 14). This camera system was specifically developed for this project. No artificial light was used for depths up to 40 fathoms on Georges Bank. A lower voltage light (15-25 W) was used for deeper waters in Downeast Maine and near Portland. A depth switch turns on the camera and recording unit at about 15 fathoms (25 m). A Sony MiniDV Camcorder (Sony TRV 17) was used as video recorder. In long play mode, an 83 minutes MiniDV cassette lasts two hours and eight minutes which covered the entire duration of tow of two hours. Short play mode was used for tows lasting for one hour. The

camera frame was installed on the top of the grid looking into the grid from the front. Selected video recording taken in relatively shallow waters on Georges Bank in 2002 were analyzed. The video analysis included identifying fish species, heading of fish, and whether the fish fall back to the codend or the retaining bag (upper cover). These observations were made with the 80 mm horizontal steel bar grid.

2.5 Catch measurement and analysis

All flounder species, cod, haddock and pollack from both experimental (codend and cover) and control trawls were measured. Fork lengths (for haddock and pollock) and total lengths (for other species) were measured to the nearest centimeter. Monkfish lengths (total length) were measured in some trips. All other species were countered for their numbers and recorded. Samples of cod were weighed. Weight of discard species were estimated.

3. RESULTS AND DISCUSSION

3.1 Flume tank tests

A 1:10 scale model of the commercial Icelandic box trawl as used by F/V "Aaron & Melissa II" was tested to provide force and geometry of the gear at a range of towing speed between 2.0 and 3.5 knots (Figure 15). Similar to many commercial trawls, headline height reduced from 12.8 ft to 6.9 ft when towing speed was increased from 2.0 to 3.5 knots. Typical towing speed is between 2.5 and 3.0 knots when fishing for flounders in Gulf of Maine. Other data measured from the flume tank is shown in Table 2.

The full scale grid section tests were to achieve a suitable rigging of grids, guiding panels, floatation, and the cover bag for collection of fish released from the grid. A photograph of the rigging after September 2001 testing is shown in Figure 16.

The April 2002 flume tank tests examined and modified a self-clearing steel grid, in response to the grid blockage experienced during October 2001 sea trials. The grid was attached to the frame on a hinge. The grid opens when excessive drag exerts on the grid due to blockages. A photograph of this new grid is shown in Figure 17.

3.2 Sea trials

Eight segments of sea trial were carried out between October 2001 and June 2005. The sea trials follows a progression of evaluation of various design and design modifications. Data sets and detailed changes to the gear and operational conditions are attached at Appendix 1.

Species caught during sea trials are listed in Table 3. Dominant species for different fishing areas and at different times are listed in Table 4. It can be seen that species mixes change at different locations and in different times of year. It was hoped that we would be able to fish in areas of with high concentrations of cod and flounders (grey sole, dab, yellowtail and blackback), only the trip on the north side of Georges Bank (Area 2 in Figure 6) encountered a reasonable amount of both cod and flounders. Changing fish composition on the fishing grounds adds another dimension to comparative fishing and analysis.

3.3 Fish behavior

Video recordings were used to verify functioning of the grid and behavior of fish in the grid section. Knowledge of the behavior of fish and the selectivity grid during fishing conditions provide directions for modification of the selectivity system. Most video recordings could not be used for quantitative analysis due to low visibility and low light level on the fishing grounds. Video recordings taken in May 2002 on Georges Bank provided useful footage for analysis. Samples of video image showing type and quality of video recording is shown in Figure 18.

On the Georges Bank videos, yellowtail flounder and haddock were the dominant species. Analysis

of video tapes indicated that about half of yellowtail flounders arrived at the grid section swimming with the trawl (heading away from codend) (Figure 19). It is interesting to note that for those yellowtail headed toward the codend, 90% of them swam straight through the 80 mm bar spacing grid toward the codend. On the other hand, those fish headed the other direction (swimming with the trawl) resulted in more varied outcomes (Figure 19), 47% flipped up to escape above the grid, 23% drifted through the space between the grid bars and 24% turned and headed toward the codend.

For haddock, 83% headed toward the mouth of trawl when arriving at the grid (Figure 20). Of those haddock headed towards the mouth of the trawl, 67% would gradually raise and drift into the upper codend, while less than 30% would swim through between the 80 mm grid bars.

This result indicates that the key element for flounders to swim through spaces between the grid bars and to end up in the codend is to induce fish to head toward the codend when they arrive at the grid section. Guiding panels and funnels ahead of the grid may result in more fish heading in the right direction. To guide haddock to the upper codend, the fish need to be swimming with the trawl (headed toward the mouth of the trawl) when arriving at the grid area.

Behavior of targeted flounder species, cod and haddock can be modified when a large number of small pelagic species such as mackerel and herring block the grid section. Video recordings taken during the tows on Georges Bank showed a crowded grid section when huge numbers of mackerel and herring were present. Mackerel and herring would normally swim out of the 6" codend meshes and not be seen on deck. In our experimental tows with an upper cover bag of 3" mesh, large numbers of mackerel and herring were retained, and many were meshed in the cover netting (Figure 21).

3.4 Species separation

Of the girds and rigging design tested, the roller grid and the diagonal grid showed promise in separating different species and sizes of the same species. Figures 22 to 26 showed separation of five different species with different grids. Notice that the upper and lower codend are almost identical in terms of size and construction (6.5" mesh codends). The 90 mm spacing RollerGrid was able to

separate most of the cod and haddock to the upper codend (Figure 27). But overall, the 105 mm RollerGrid (H105R) seemed to have better separation with cod and haddock in the upper codend and American place and witch flounder in the lower codend (Figure 28).

Both the 90 mm diagonal grid (D90) and the 90 mm horizontal RollerGrid (H90R) seemed to separate monkfish by size (Figure 29). The majority of legal size monkfish (≥43 cm) (88% and 85%) were retained in the upper codend while majority of sublegal fish (76% and 68%) swimming through the grid and retained in the lower codend. These grids may be used when targeting monkfish with the lower codend open, resulting in substantial reduction in discard of undersized monkfish without substantial loss of legal size fish.

4. PARTICIPANTS AND PARTNERSHIPS

The project involved three fishing skippers, Capt. Bart McNeel, Capt. James Matheson, and Capt. Glenn McIntyre and more than ten crew members from southern Maine area. The industry partner, Capt. Bart McNeel, the owner and skipper of F/V "Aaron and Melissa II" has been involved in the project since the inception of the project, design of fishing gear, flume tank tests in Newfoundland, and sea trials. We have built up strong collaborative relationship and are looking into future cooperative projects in conservation and sustainable utilization of fisheries resource in Gulf of Maine and on Georges Bank. The project also received technical support from staff of the Canter for Sustainable Aquatic Resources of Memorial University of Newfoundland during initial design and flume tank tests. Harold DeLouche the center was instrument in detailed gear design, and George Legge was responsible for fabrication of prototype grids and components.

5. RELATED PROJECTS

Since the funding was approved for this project, two cooperative research projects on fish behavior and species separation funded by the Northeast Cooperative Research Partners Program (NCRPP)

of the National Marine Fisheries Service. The NCRPP projects mainly concentrated on separating haddock and other species (He et al, 2006 & b). Promising results from this project on monkfish separation by grid devices has resulted in an NEC Developmental project to design and test a monkfish size selection grid device for monkfish trawl. This project is still in progress.

6. PRESENTATIONS, REPORTS AND PAPERS

Results on fish behavior in front of the sorting grid was presented at the ICES/FAO Symposium on Fish Behavior in Exploited Ecosystems held in Norway in June 2003. Data and images has been used in a number of conference posters. Analysis of fish behavior and results on species separation by various grid designs are being prepared for submission to journals.

7. DATA AND IMAGES

Data from the project are being filed and will be made available to the Fisheries and Oceans Database of the Northeast Consortium. Images from the project has been used in Consortium publications, conference posters, and promotional materials. Selected images will be made available to the Fisheries and Oceans Database.

8. ACKNOWLEDGMENTS

The project is financially supported by the Northeast Consortium, a join initiative of the University of New Hampshire, University of Maine, Massachusetts Institute of Technology and Woods Hole Oceanographic Institution. We would also like to thank Mr. Harold DeLouche and George Legge, both of the Fisheries and Marine Institute for the extra effort during tank testing. Rachel Hamilton and Tracey Smith participated in sea trials. Rachel Hamilton, Tracey Smith and Sean Maxwell participated in data collection, data entry and initial analysis.

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Tables

Table 1. Design variations of species separation grid tested at sea.

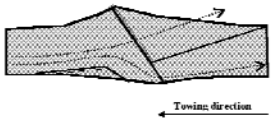
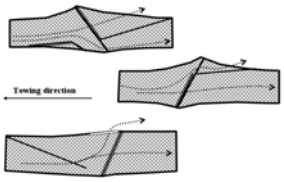
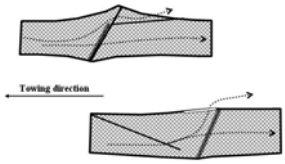
Grid type	**HDPE GRID**	**STEEL GRID**	**STEEL ROLLERGRID**
Grid spacing	**90 mm**	**80 mm, 90 mm, 105 mm**	**80 mm, 90 mm, 105 mm**
Orientation	**vertical, slanted forward**	**vertical/horizontal/diagonal slanted forward/ backward**	**horizontal/ vertical slanted backward**
Other details	**with mini grid of 50 mm spacing in front**	**also with hinges for angle adjustment**	**also with large opening on the bottom for skates/monkfish**
Sketch			
Tested	**Oct. 2001**	**April/May 2002 June 2005**	**Aug. 2002, July/Sept 2003 June 2005**

Table 2. Geometry of the 120' Icelandic box trawl as measured in the flume tank.

MARINE INSTITUTE FLUME TANK TRAWL MODEL MEASUREMENTS	Linear scale 1: 10	
	Speed scale 1: 5	
Date: 09/09/01	Area scale 1: 103	

University of New Hampshire
120 ft. Icelandic Box Trawl
Rig 1: Standard

FULL SCALE VALUES

Door type	Door area	Backstr. length (ft)	U.bridle length (ft)	M.bridle length (ft)	L.bridle length ((ft)	U.bridle ext. (ft)	L.bridle ext. (ft)	Sweep length (ft)	W/E weight (lb)	Float buoy. (lb ea.)	No. of floats	Total buoy. (lb)
Morgere		9.8	120	0.0	120	3.0	0	240	0	6.6	50	330

Towing speed	***SPREAD***				*OPENING*		*TENSION*			*Mouth area*	*Mouth drag*	*Bridle angle*
	Door	***U.wing***	***L.wing***	***Mean***	***Wing***	***H/Line***	***Port***	***Stbd***	***Total***			
(kt)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ton)	(ton)	(ton)	(ft^2)	lb/ft^2	(deg)
2.0	223.4	63.1	74.9	69	8.9	12.8	1.0	1.0	2.0	882.8	5	12
2.5	229.4	62.4	75.2	68.8	7.2	9.8	1.2	1.2	2.5	677.2	8	12.5
2.8	232	63	76.1	69.6	6.6	8.9	1.4	1.4	2.8	616.3	10.1	12.7
3.0	236.2	63.4	76.1	69.8	5.9	7.9	1.5	1.6	3.1	549.3	12.3	13
3.5	241.1	64.4	78.4	71.4	4.6	6.9	1.8	1.9	3.7	492.1	16.4	13.3

Backstr. - Backstop, U. - upper, M. - middle, L. - lower, ext. - extension, buoy. - buoyancy, H/Line - Headline, Stbd - Starboard

Table 3. Minimum landing size (MLS) for some commercial groundfish species in Gulf of Maine. TL - total length, FL - fork length.

Primary target commercial species	MLS
Atlantic cod (*Gadus morhua*)	55.9 cm TL
haddock (*Melanogrammus aeglefinus*)*	47.0 cm FL
pollock (*Pollachius virens*)*	47.0 cm FL
yellowtail flounder (*Limanda ferruginea*)	33.0 cm TL
American plaice, dab (*Hippoglossoides platessoides*)	35.6 cm TL
witch flounder, grey sole (*Glyptocephalus cynoglossus*)	35.6 cm TL
winter flounder, blackback *(Pseudopleuronectes americanus*)	30.5 cm TL
offshore hake, white hake (*Urophycis tenuis*)	49 .0 cm TL
monkfish, goosefish (*Lophius americanus*)	43.0 cm TL
Other species	
silver hake (*Merluccius bilinearis)*	
red hake (*Urophycis chuss*)	
Atlantic wolffish (*Anarhichas lupus*)	
ocean pout *(Macrozoarces americanus)*	
Atlantic halibut (*Hippoglossus hippoglossus*)	
windowpane (*Scophthalmus aquosus*)	
four-spot flounder (*Paralichthys oblongus*)	
spiny dogfish (*Squalus acanthias*)	
thorny skate (*Raja radiata*)	
little skate (*Raja erinacea*)	
winter skate (*Raja ocellata*)	
barndoor skate (*Raja laevis*)	
sea raven (*Hemitripterus americanus*)	
longhorn sculpin (*Myoxocephalus octodecempinosus*)	
wrymouth (*Cryptacanthpdes maculatus*)	
Atlantic herring (*Clupea harengus*)	
American shad (*Alosa sapidissima*)	
Atlantic mackerel (*Scomber scumbrus*)	
American lobster *(Homarus americanus*)	
rock crab (*Cancer irroratus*)	
northern stone crab (*Lithodes maja*)	
red crab (*Chaceon quinquedens*)	
snow crab (*Chionoecetes opilio*)	
scallops (*Placopecten magellanicus*)	

* MLS for haddock and pollock is 19" (48.3 cm) TL. 47 cm MLS FL is used here.

Table 4. Fishing area, and dominant species during sea trials.

Fishing area*	Time	Dominant species	Minor species
Downeast Maine (1)	Oct. 2001	grey sole, monkfish, hake	cod
Truxton Swell (1)	Oct. 2001	yellowtail, monkfish, haddock	greysole
Downeast Maine (1)	Sept. 2003	cod, grey sole	monkfish, white hake
Off Portland (2)	April/May 2002	dab, grey sole	cod, haddock
Off Portland (2)	Aug. 2002	dab, grey sole	cod, haddock
Off Portland (2)	July 2003	cod, dab	monkfish
Off Portland (2)	June 2005	cod, dab, monkfish	haddock, greysole
Georges Bank - North (3)	May 2002	yellowtail, cod	blackback, mackerel
Georges Bank - South (4)	May 2002	yellowtail, haddock	mackerel

* see Figure 6 for corresponding numbers.

Figures

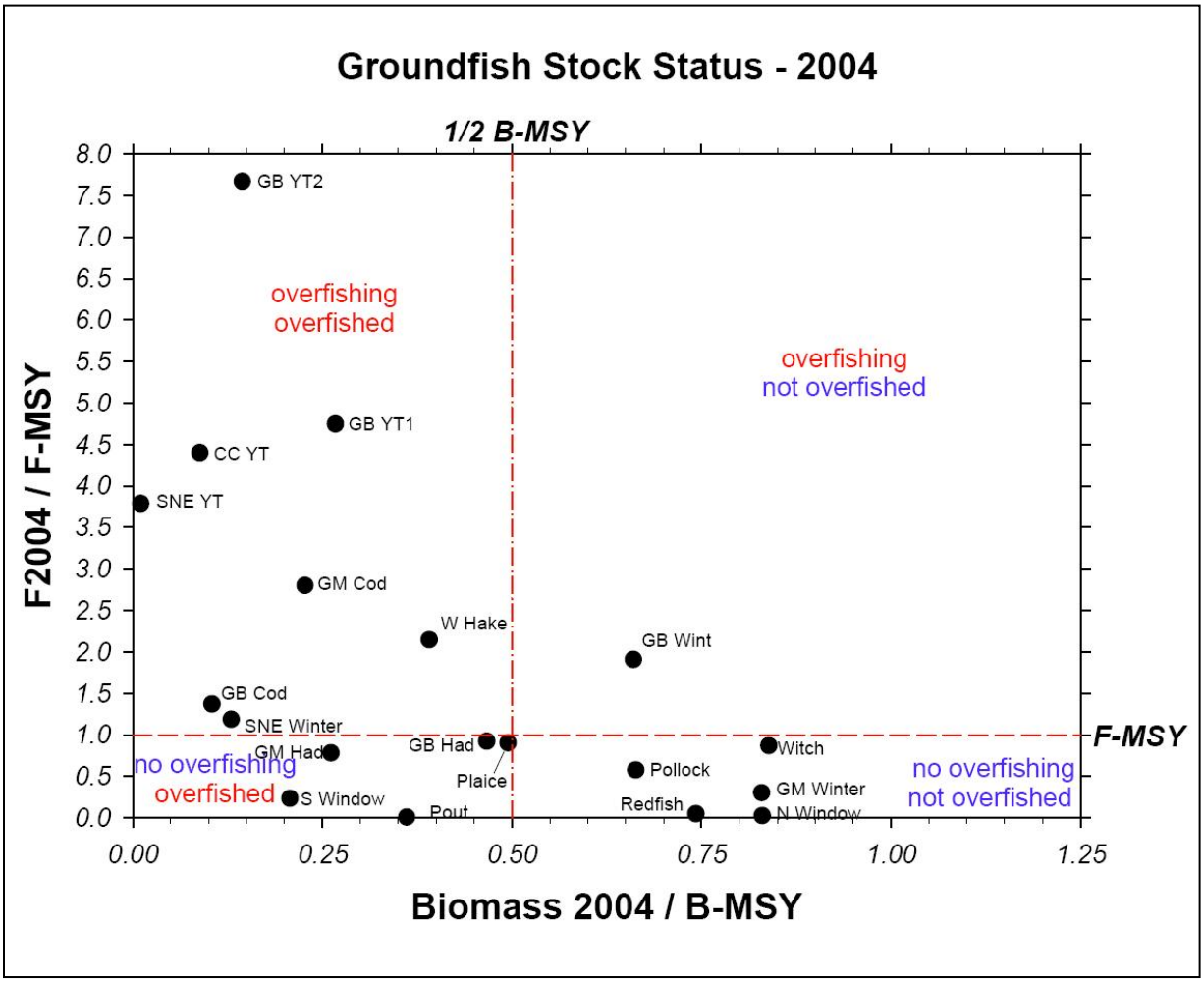


Figure 1. Status of the 18 groundfish stocks managed by the New England Fishery Management Council in 2004. From Mayo and Terceiro (2005).

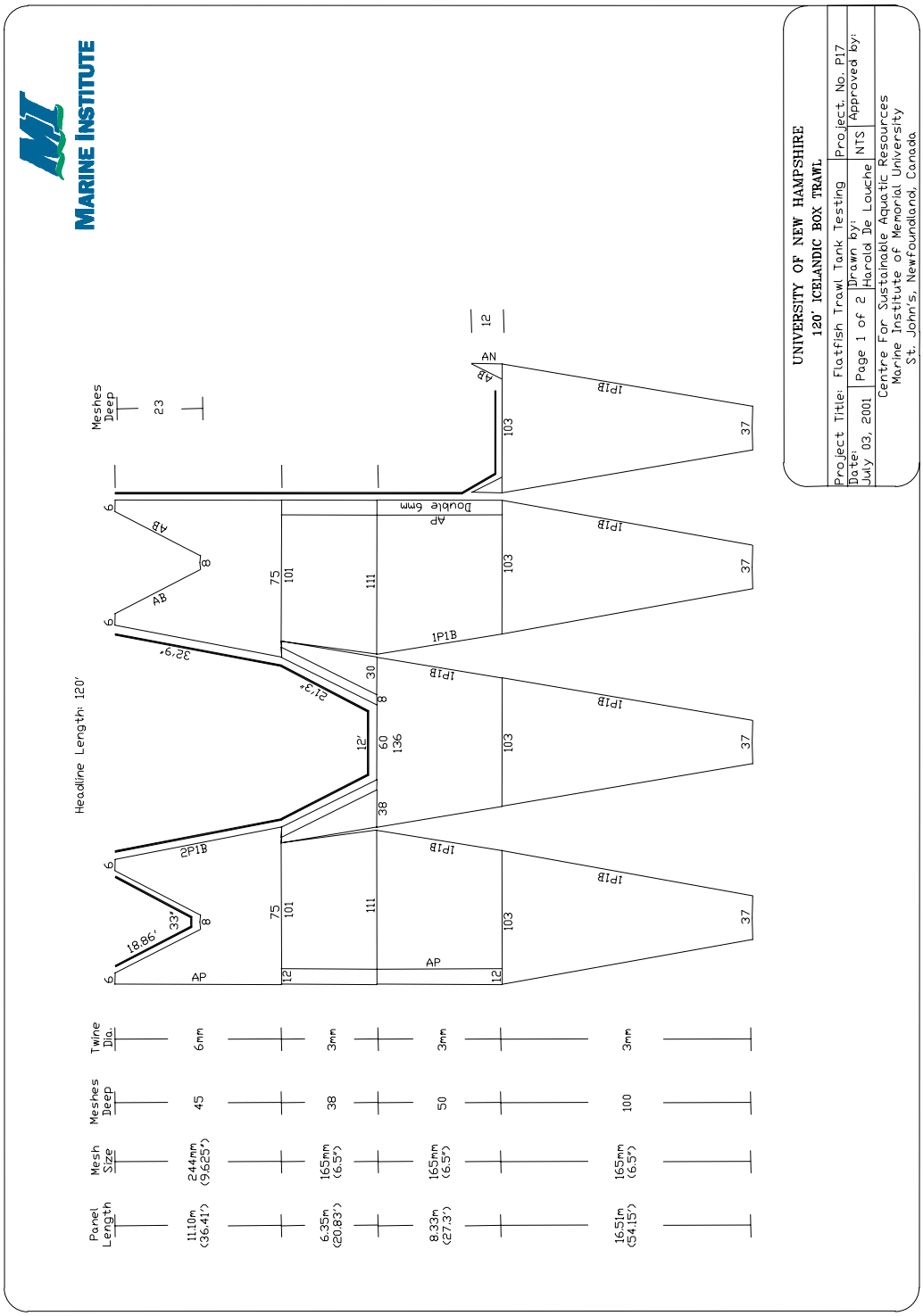


Figure 2. Net plan for the 120' Icelandic Box trawl used for the experiment and as the control.

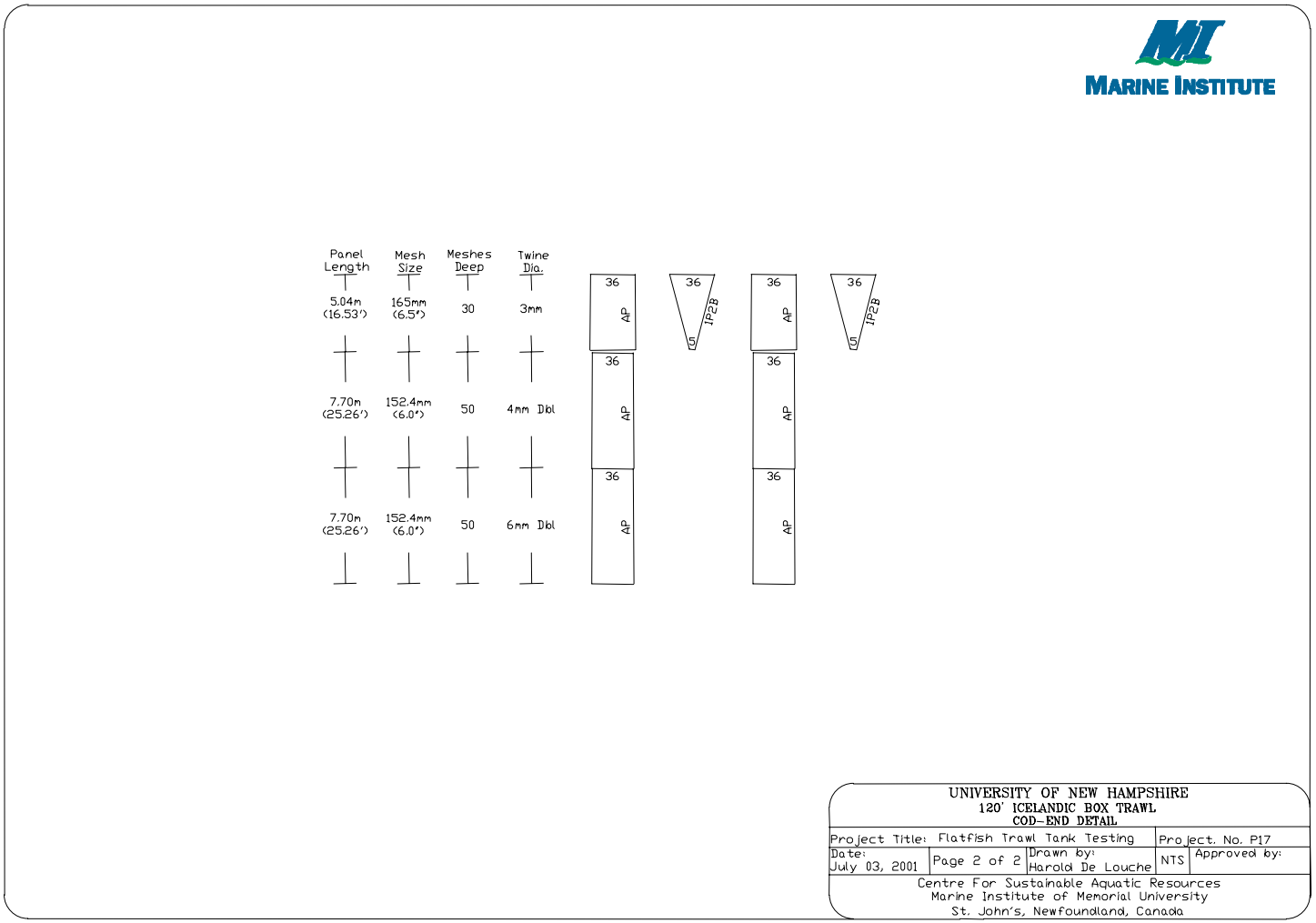


Figure 3. Net plan for the extension and the codend of the 120' Icelandic Box trawl used for the experiment and as the control.

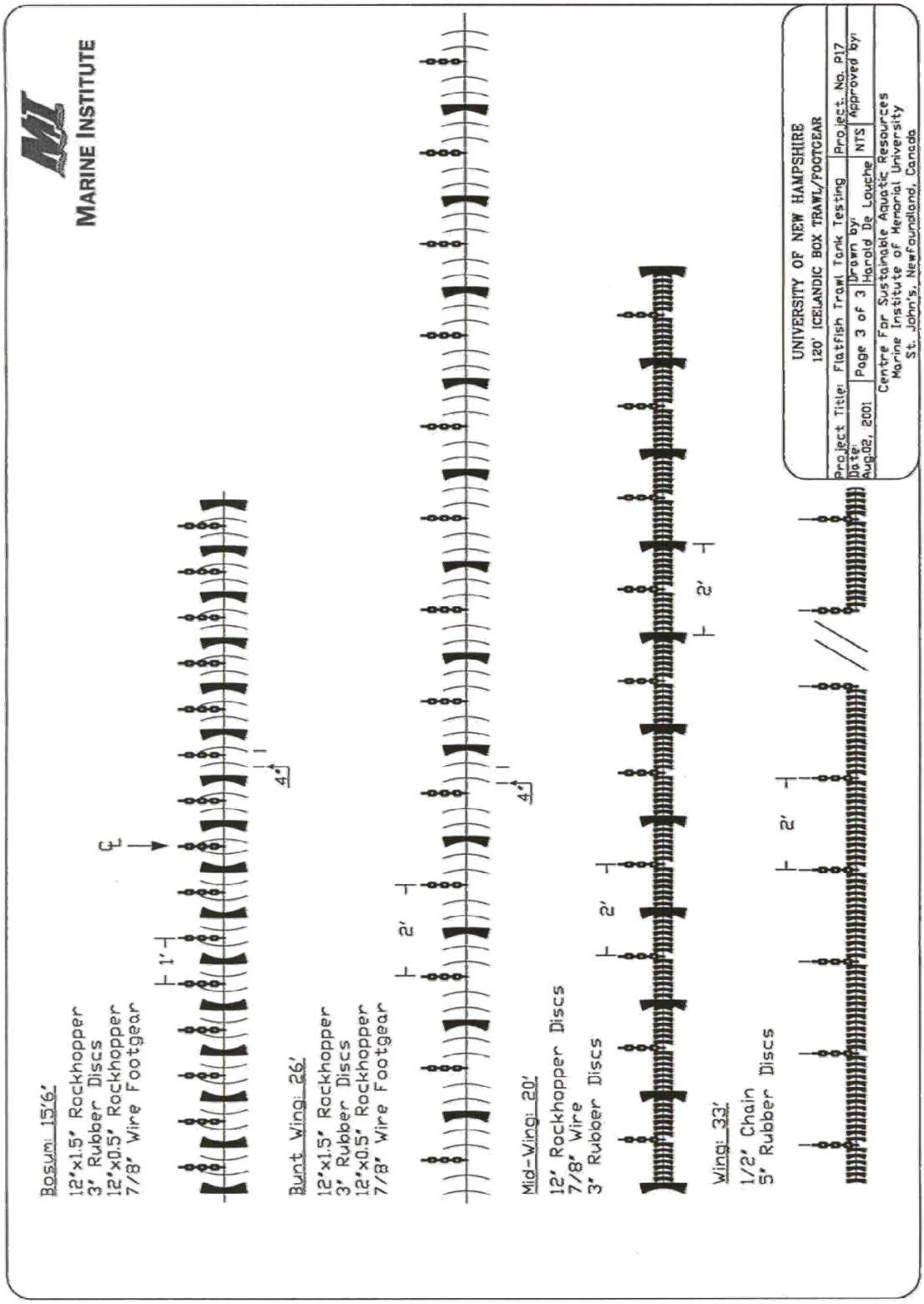


Figure 4. Groundgear rigging for the 120' Icelandic Box trawl used for the experiment and as the control.

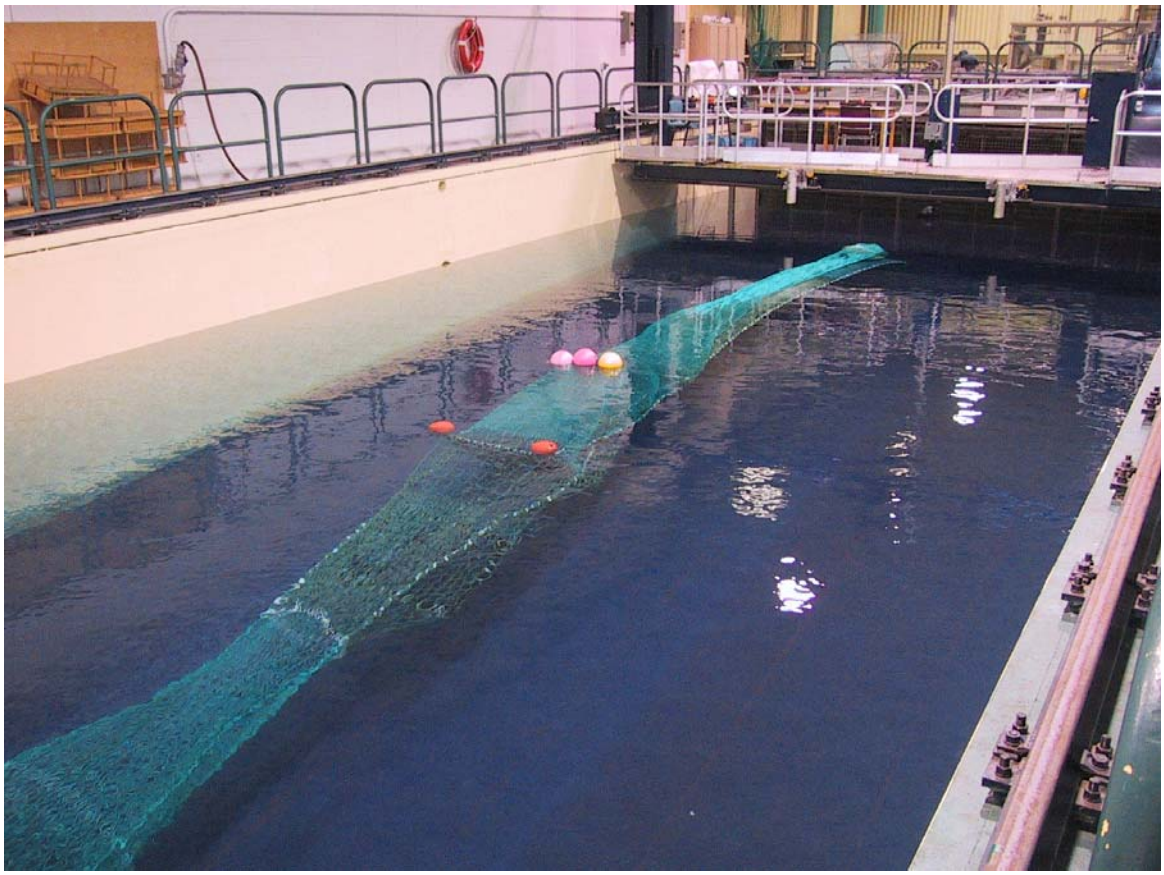


Figure 5. The full scale of the grid section of the trawl as seen from the upper deck of the flume tank.

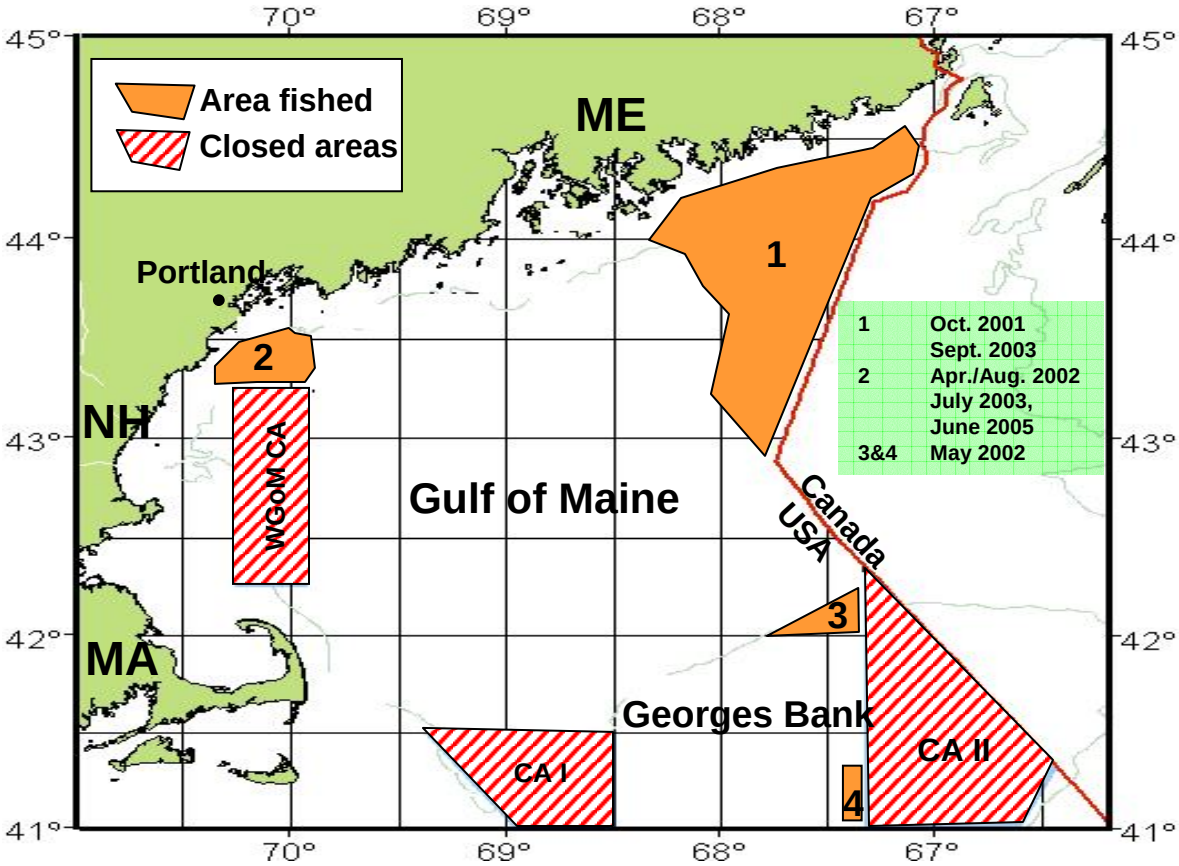


Figure 6. Fishing area during the sea trials.

Figure 7. F/V “Aaron and Melissa II” used for the sea trials.

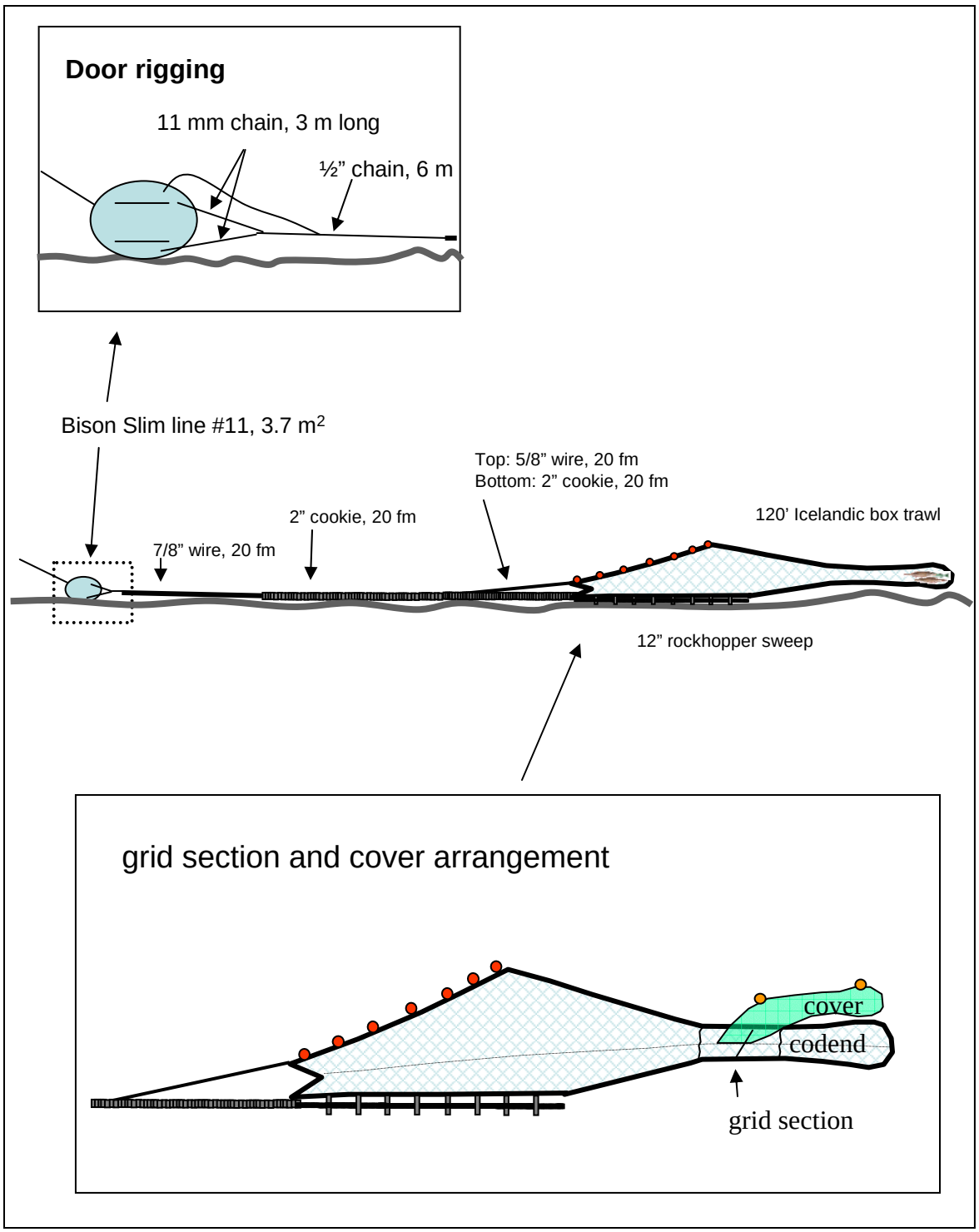


Figure 8. Bridle and door rigging and cover arrangement for the 120' Icelandic box trawl for F/V "Aaron & Melissa II".

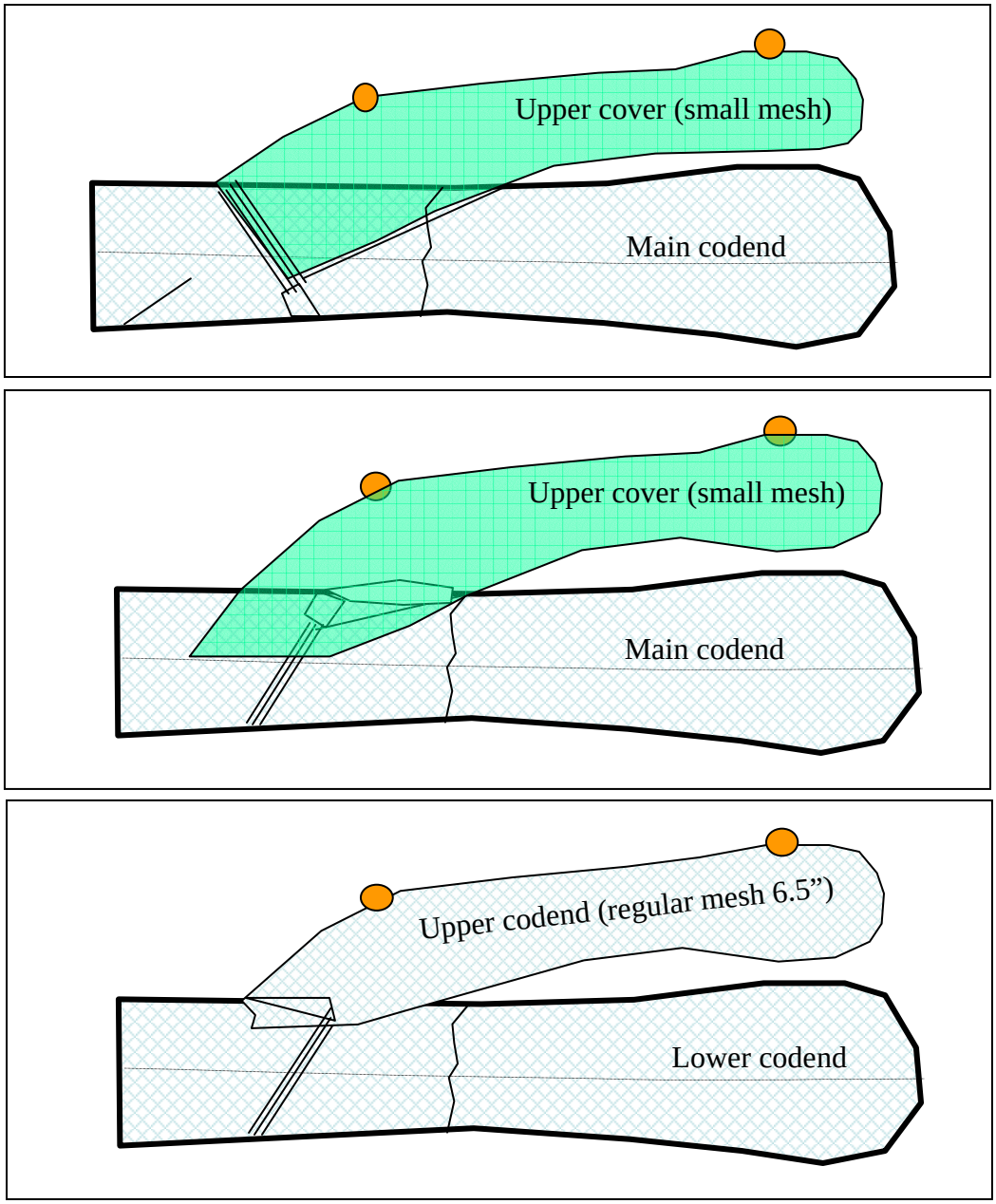


Figure 9. Three cover or upper codend arrangements.

Figure 10. The 90 mm spacing high density polyethylene (HDPE) grid used during the 2001 sea trials.

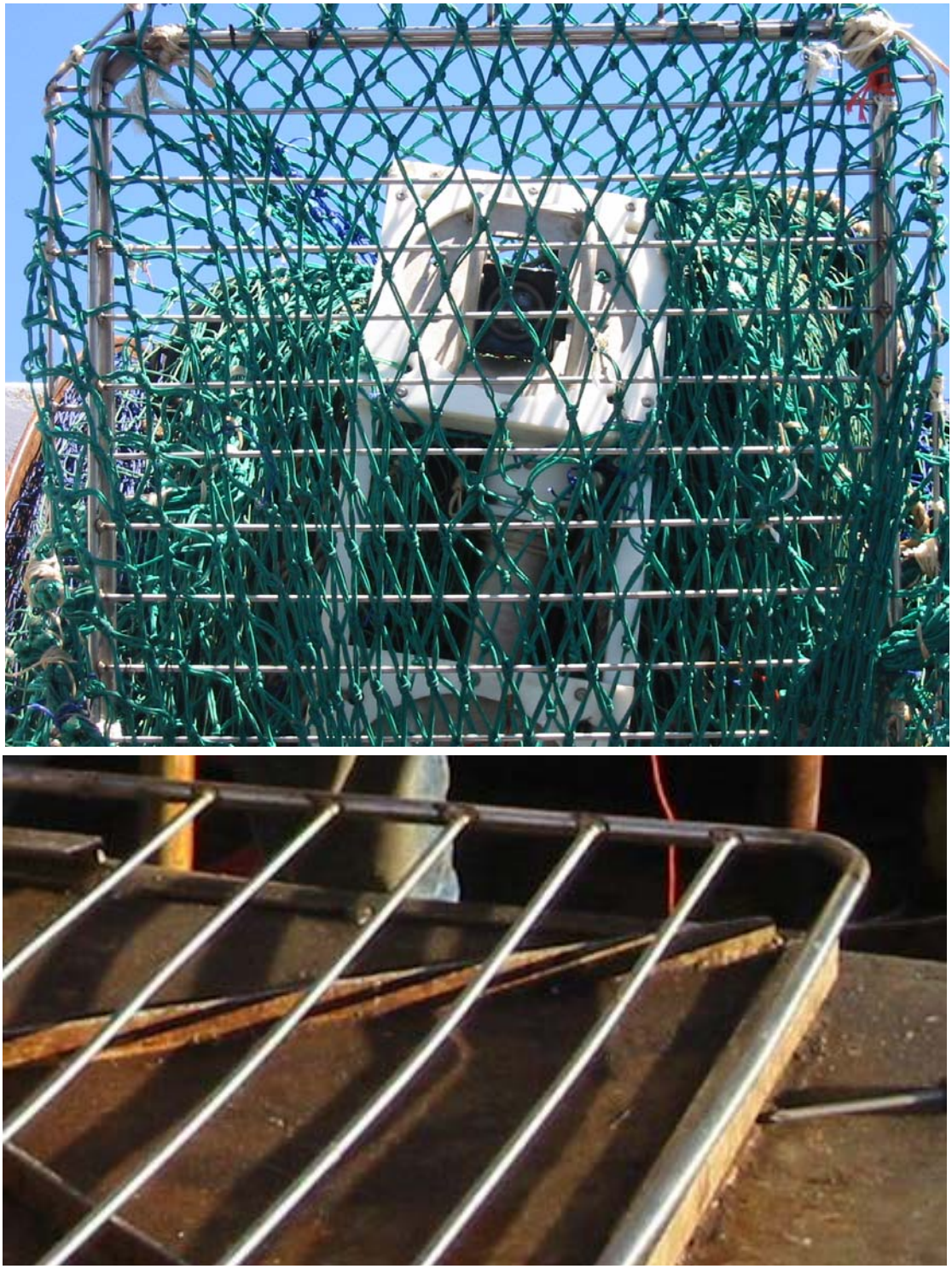


Figure 11. The stainless steel grid used during 2002, 2003 and 2005 sea trials.

Figure 12. The RollerGrid, plastic tubes over stainless steel, used during 2003 and 2005 sea trials.

Figure 13. The 90 mm diagonal stainless steel grid used during the 2005 sea trials.

Figure 14. The self-contained underwater video camera and timer recording package used during sea trials.

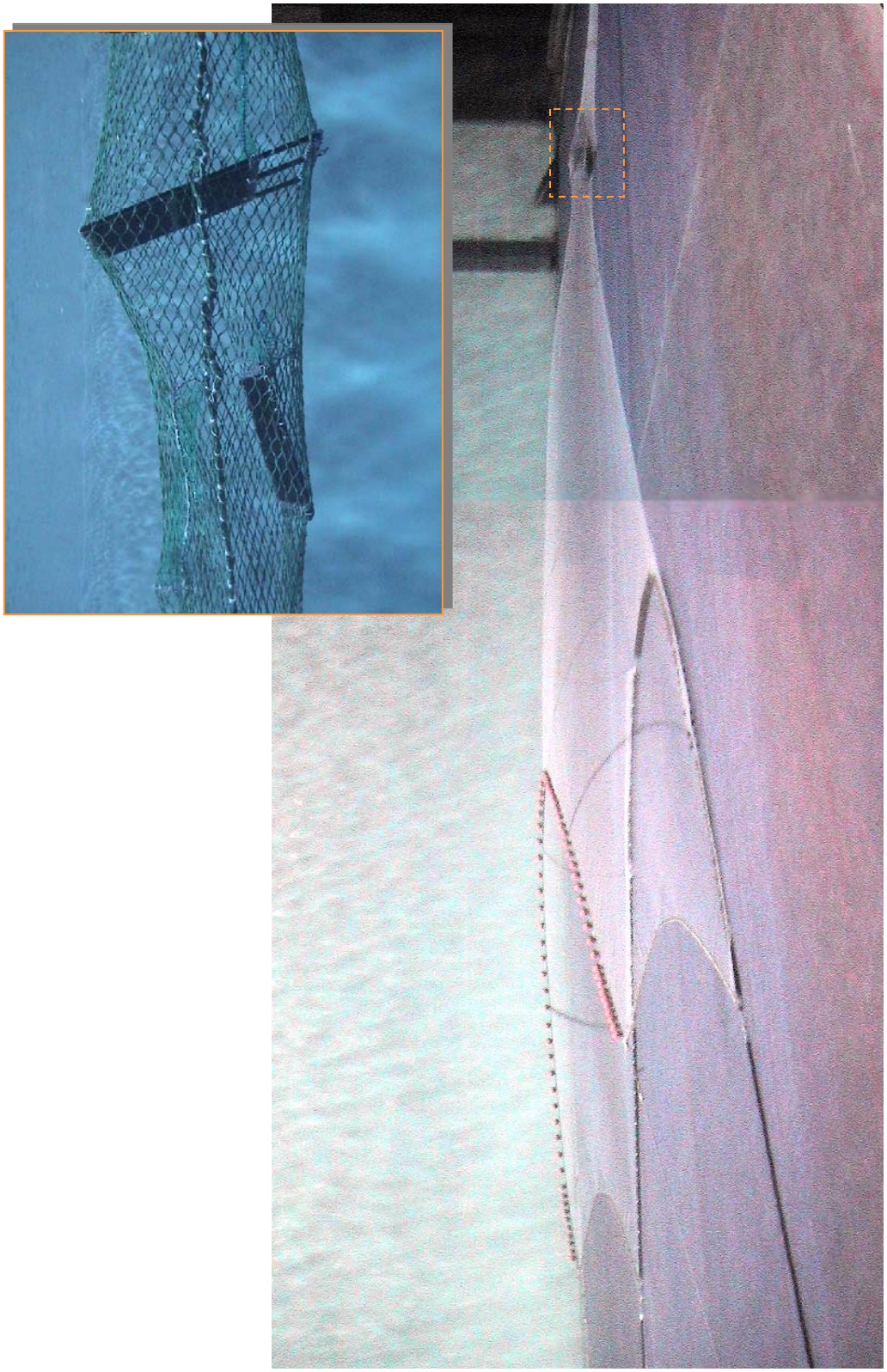


Figure 15. The scale model of the 120" Icelandic box trawl as seen in the flume tank. Inset: the grid section (full scale)

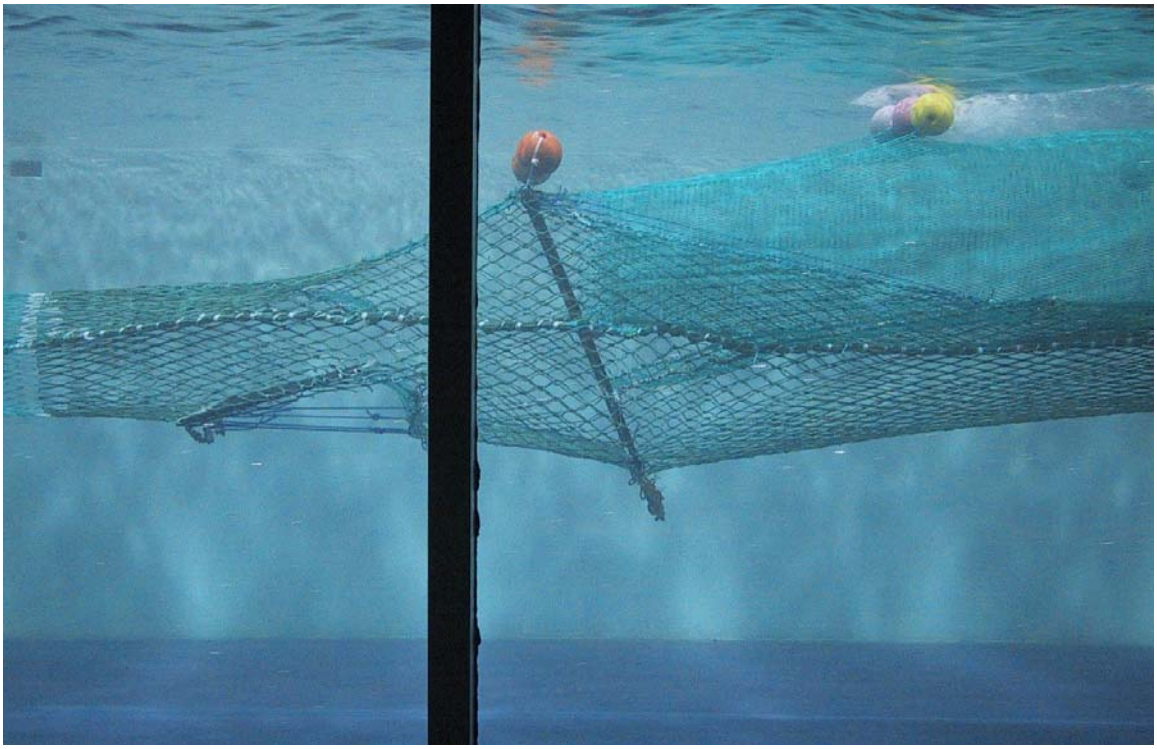


Figure 16. The full scale grid section as seen in the flume tank.

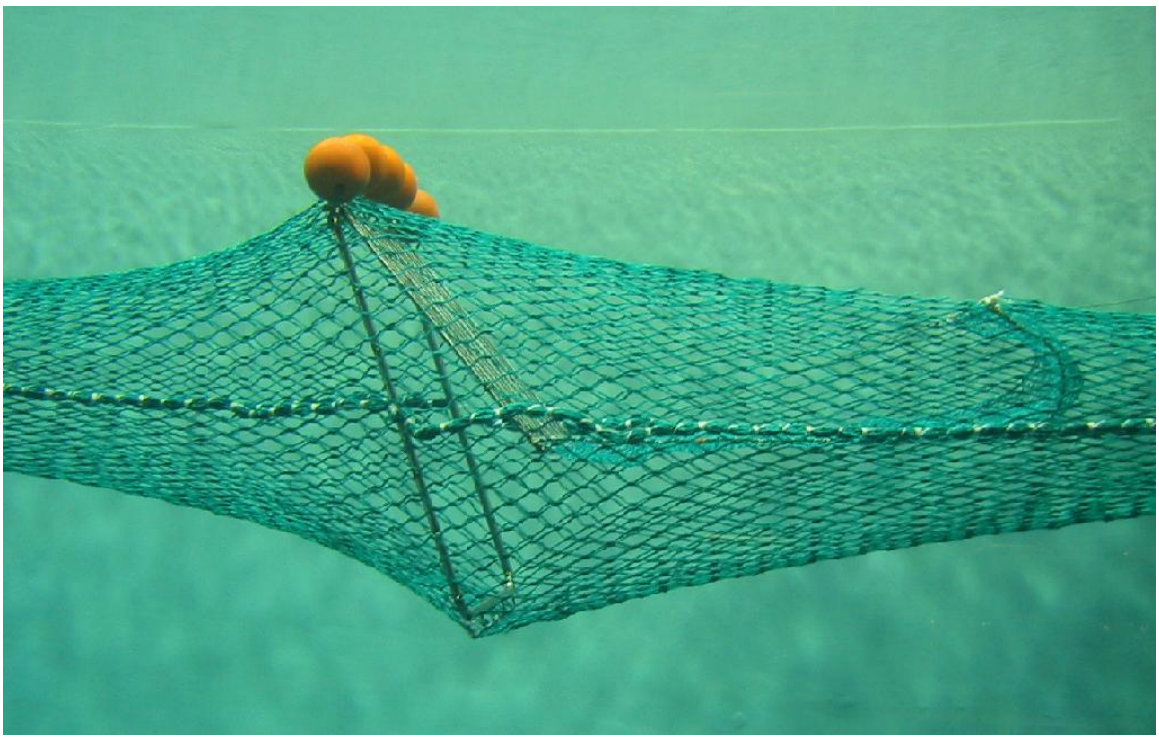


Figure 17. The adjustable stainless steel grid (full scale) as seen in the flume tank.

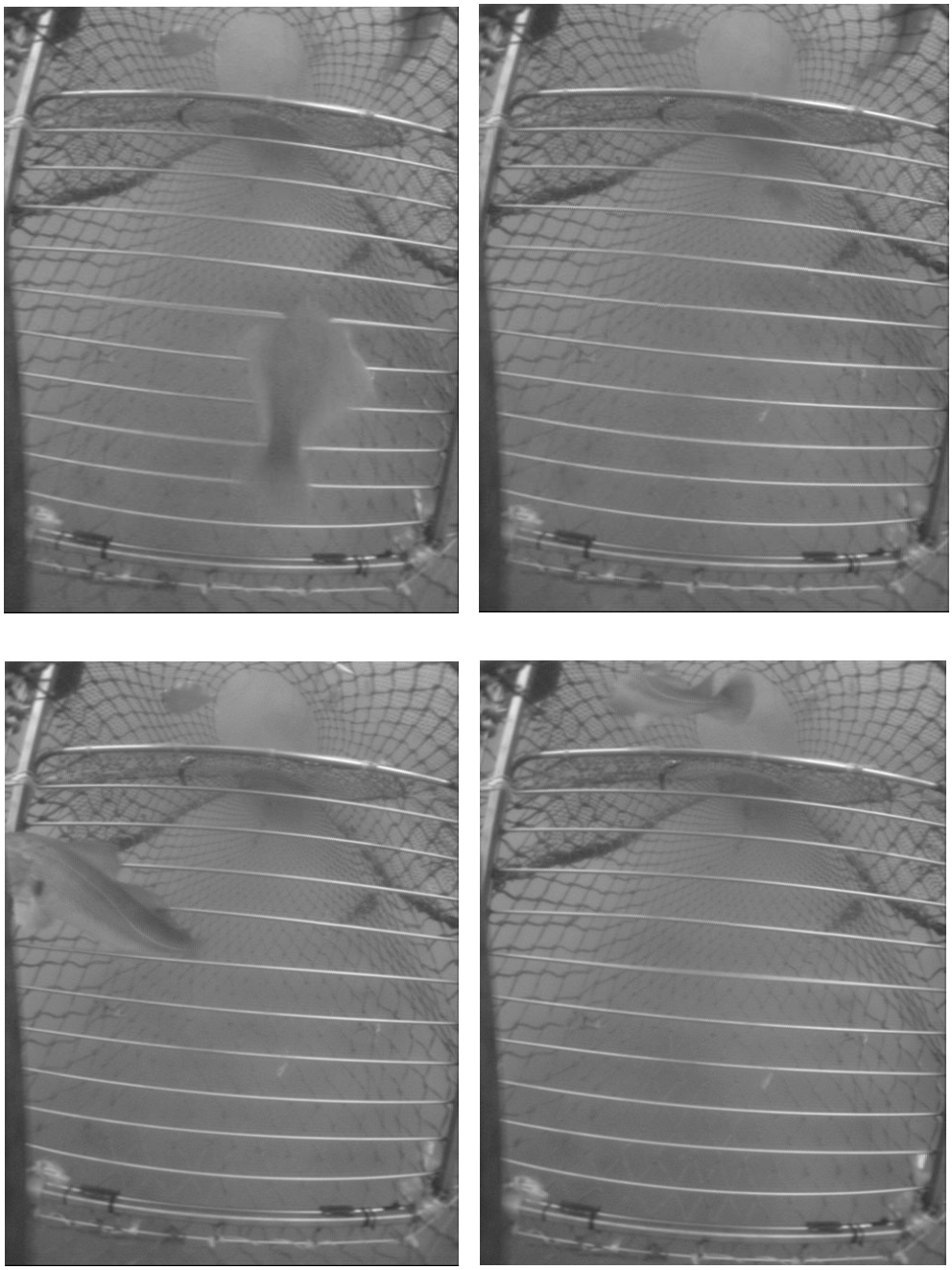


Fig. 18. Examples of underwater video recording of flounders (top) and haddock (bottom) at the grid section (80 mm steel grid).

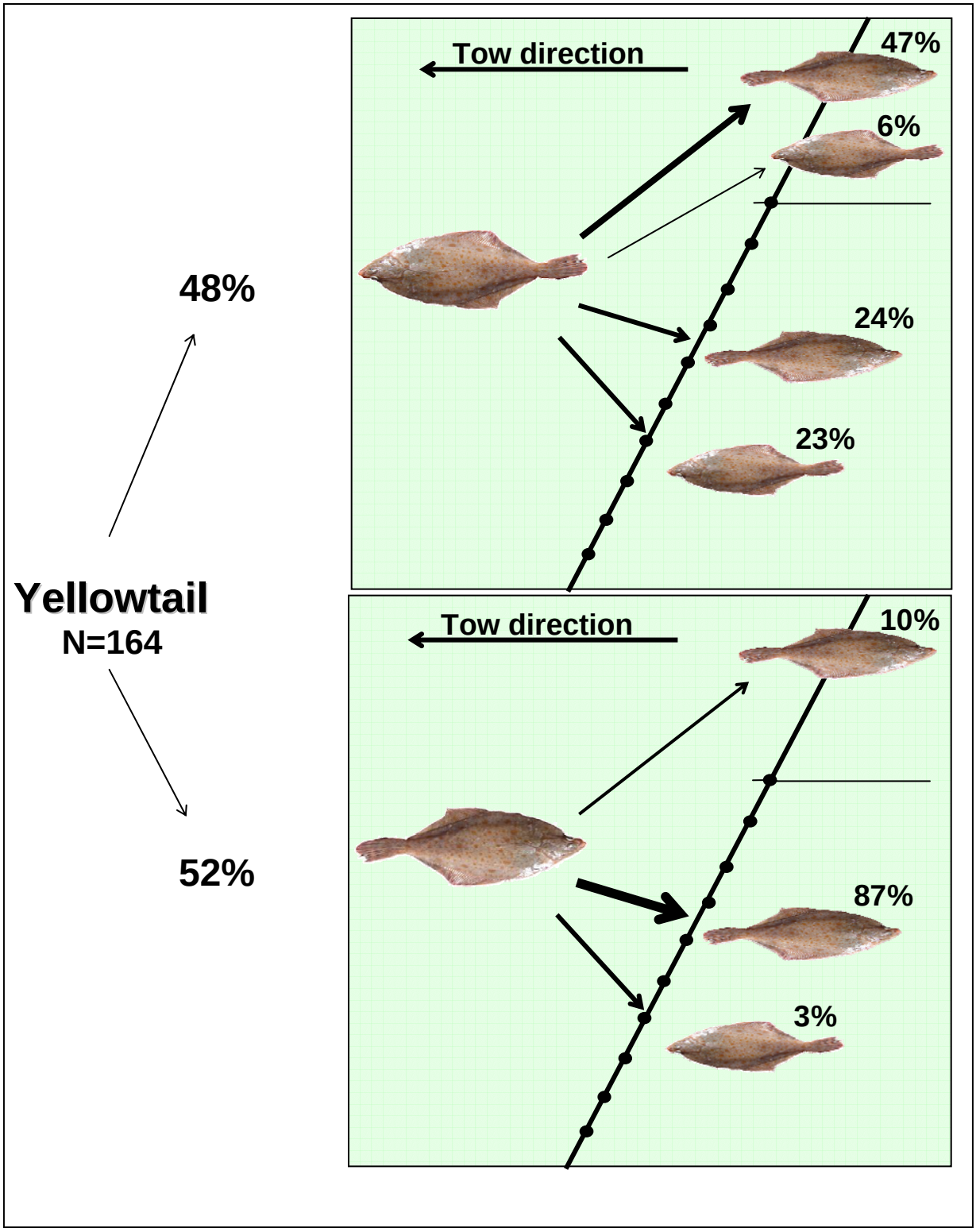


Figure 19. Heading of yellowtail flounder before the grid and subsequent separation by the 80 mm horizontal steel grid from may 2002 video recordings.

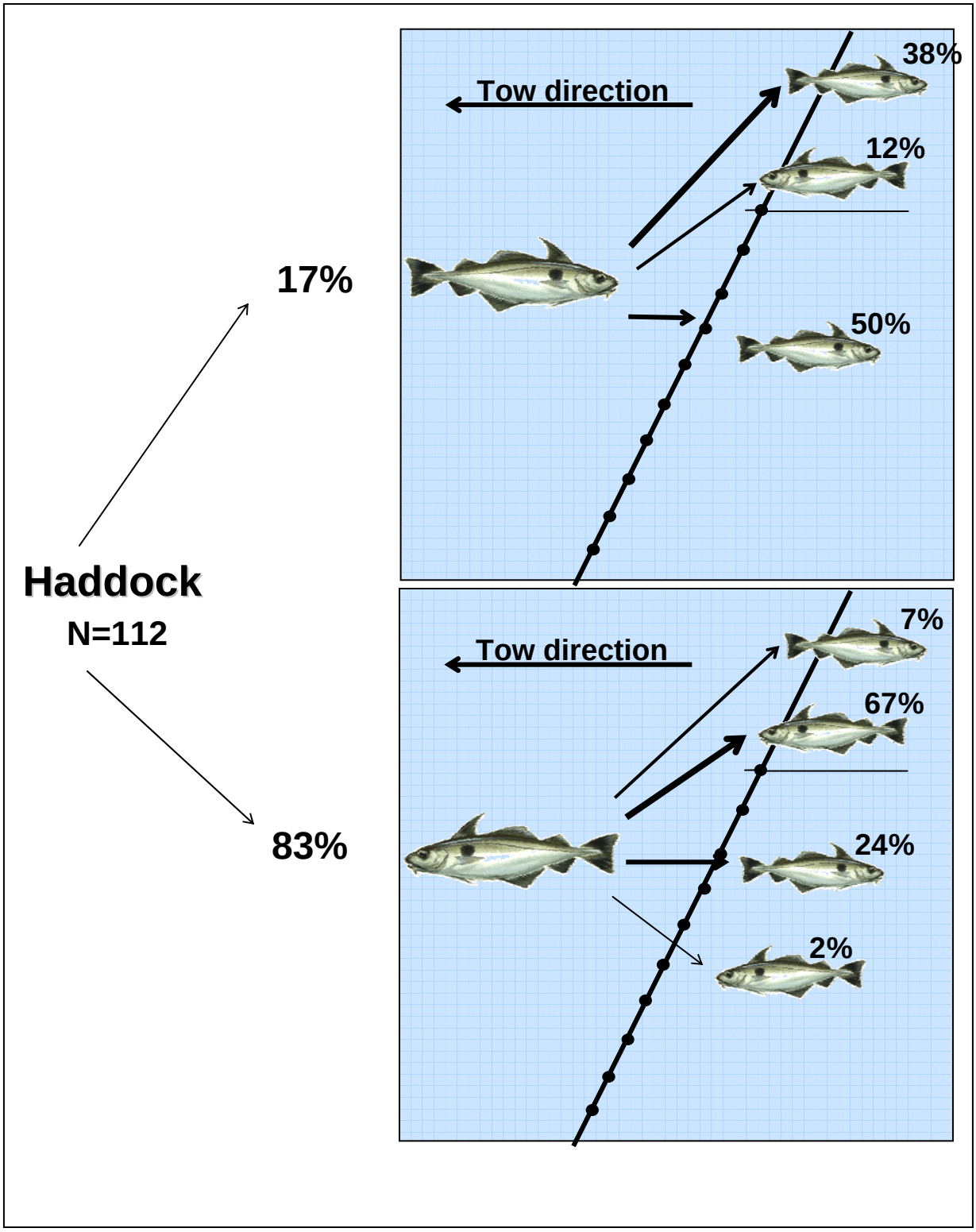
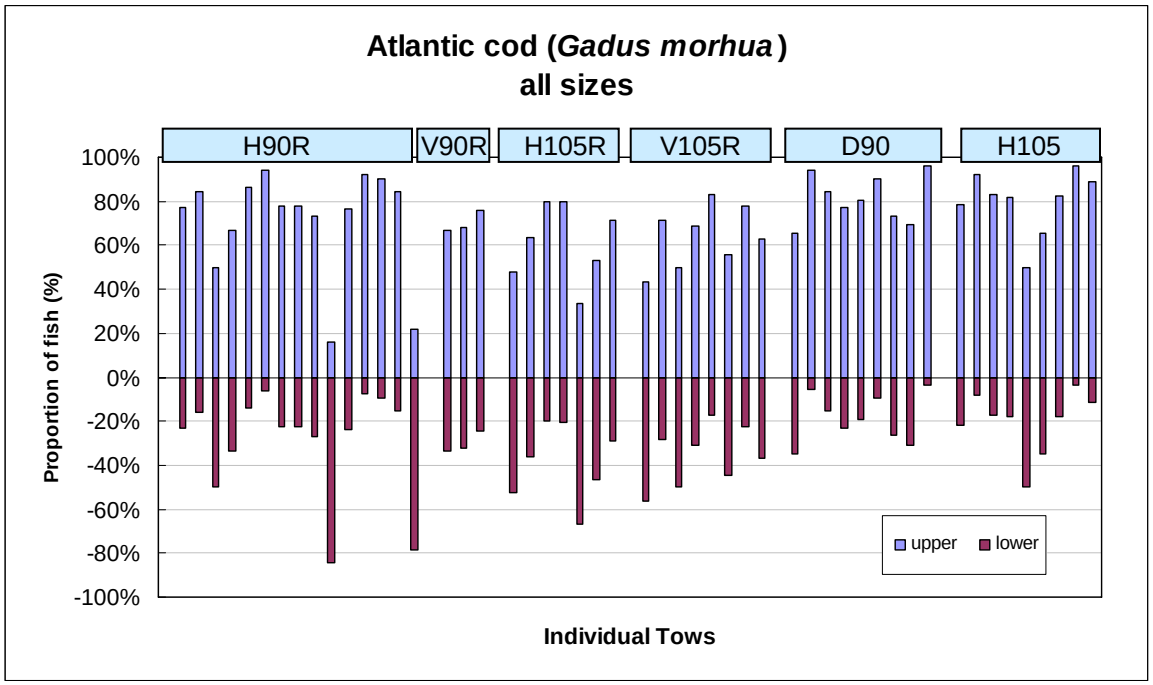


Figure 20. Heading of haddock before the grid and subsequent separation by the 80 mm horizontal steel grid from may 2002 video recordings.

Figure 21. Atlantic herring is the one of species seen in the video but seldom seen in the codend. Seen here are some from the 80 mm cover.



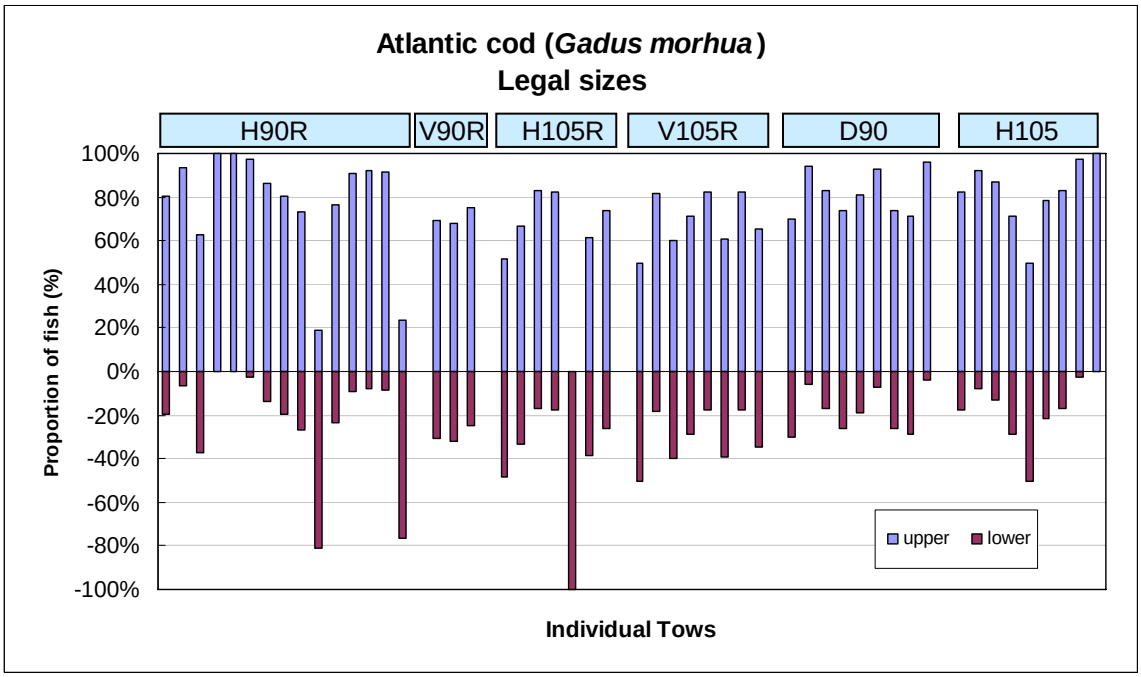
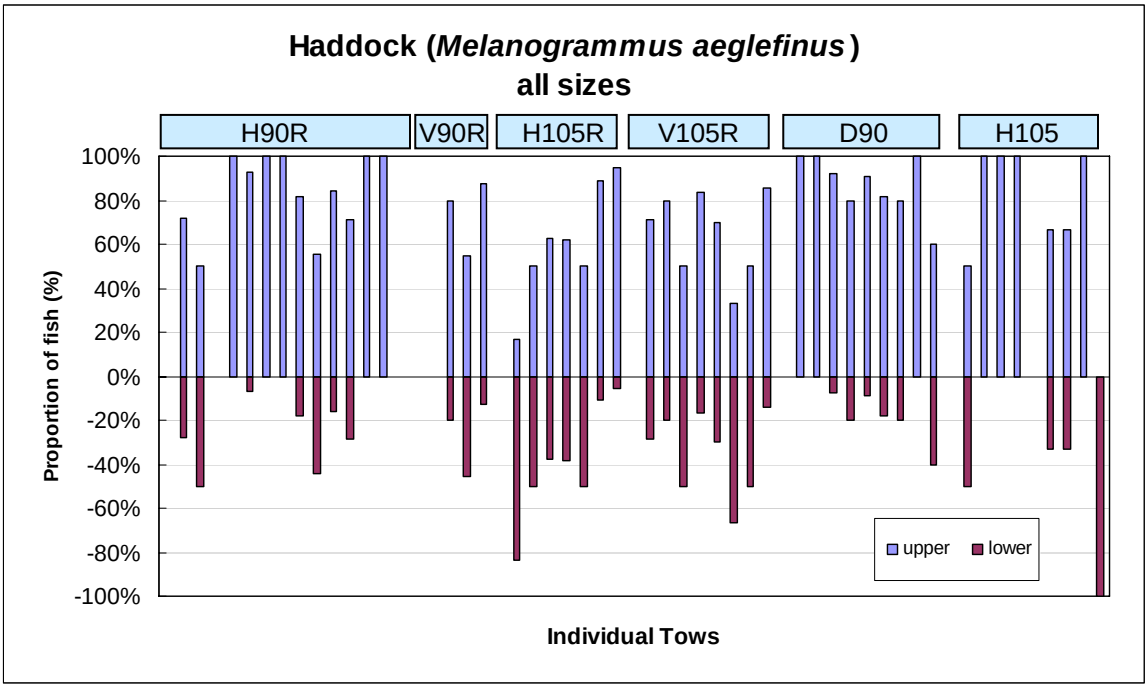


Figure 22. Separation of Atlantic cod by various grids from 2005 sea trials. Top: all fish; Bottom: legal size fish.



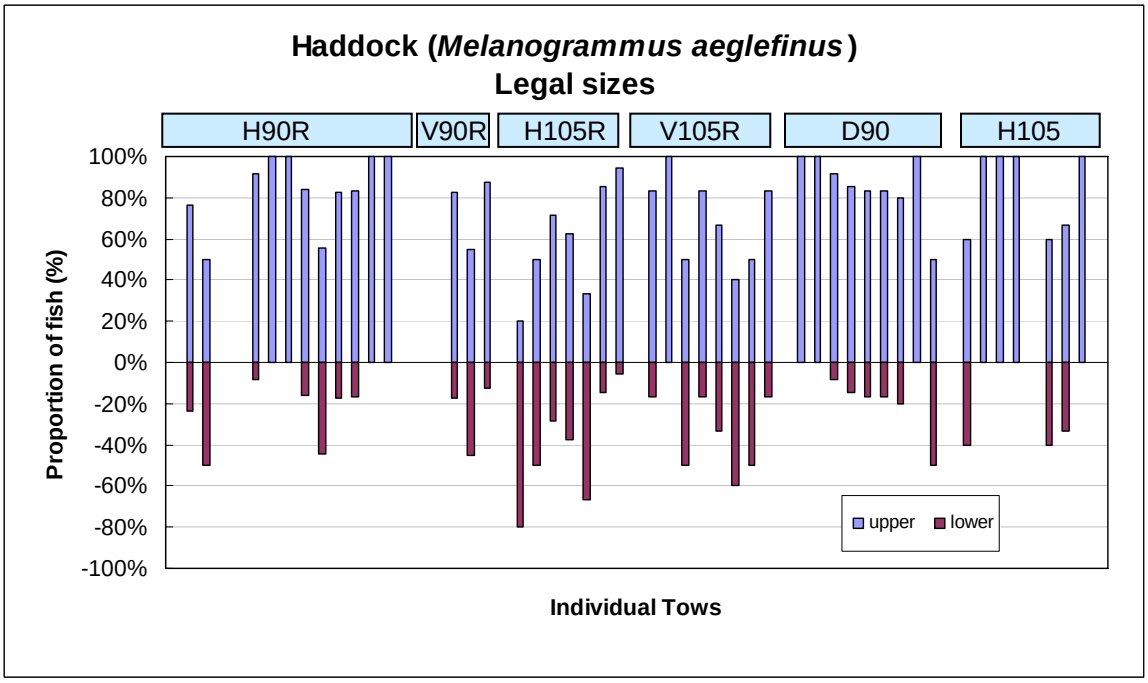
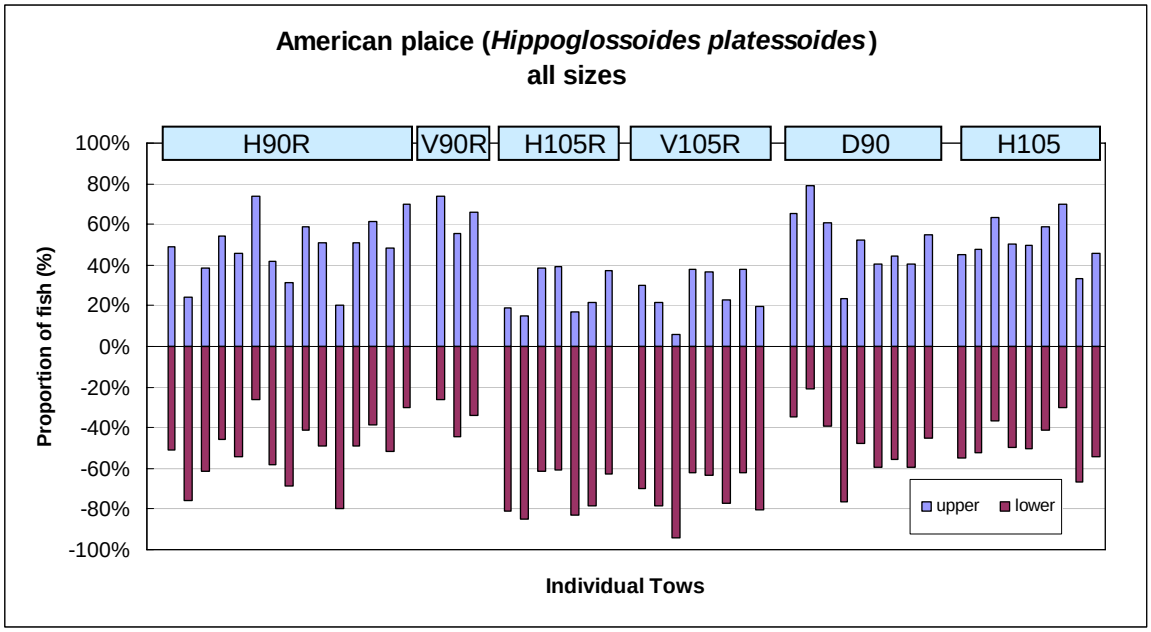


Figure 23. Separation of haddock by various grids from 2005 sea trials. Top: all fish; Bottom: legal size fish.



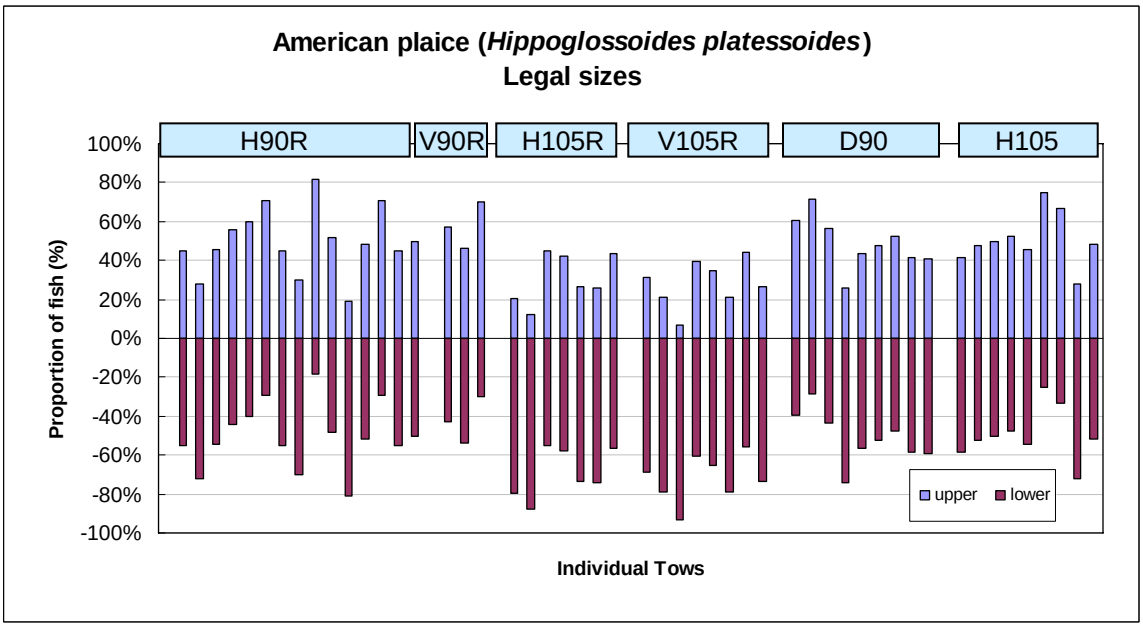
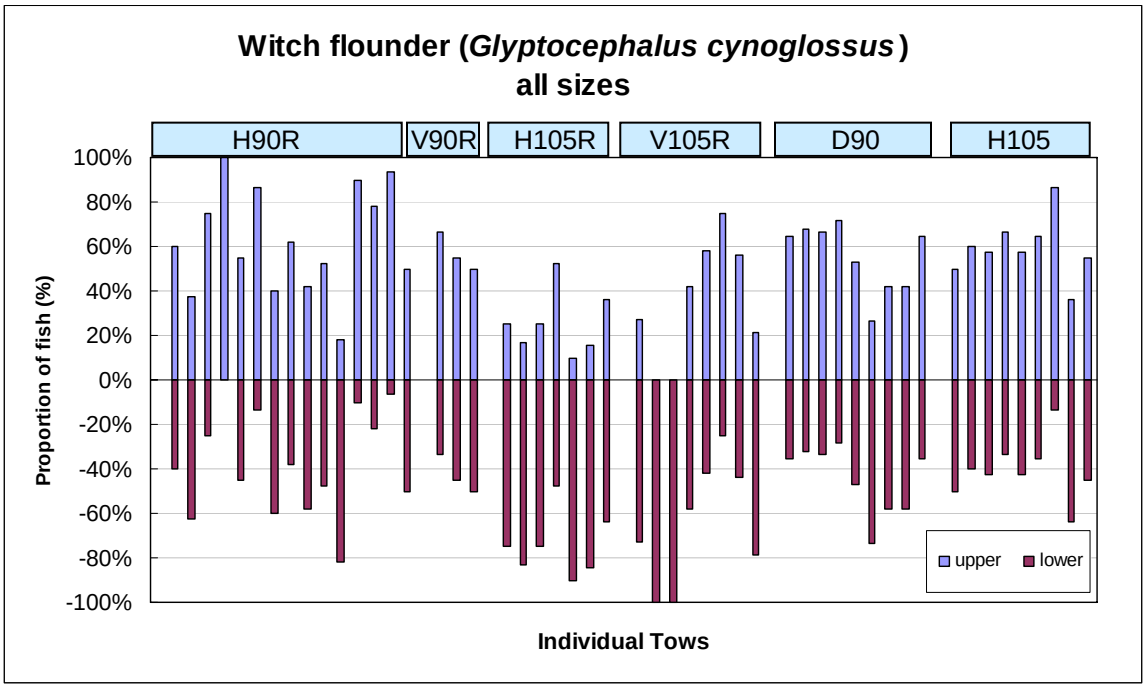


Figure 24. Separation of American plaice (dab) by various grids from 2005 sea trials. Top: all fish; Bottom: legal size fish.



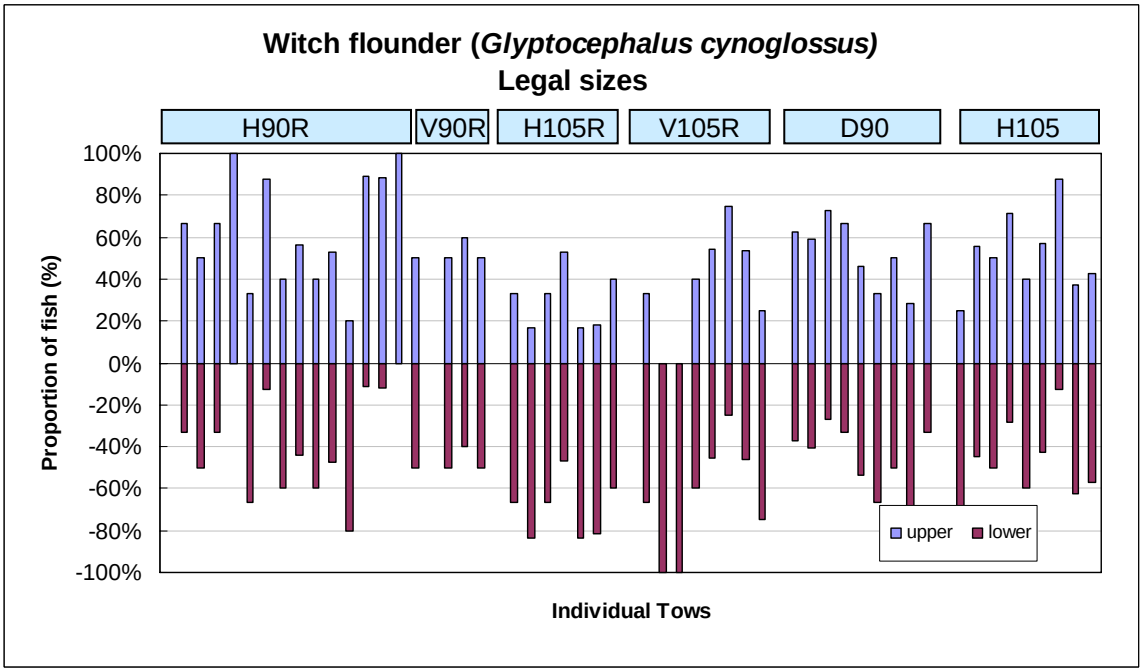
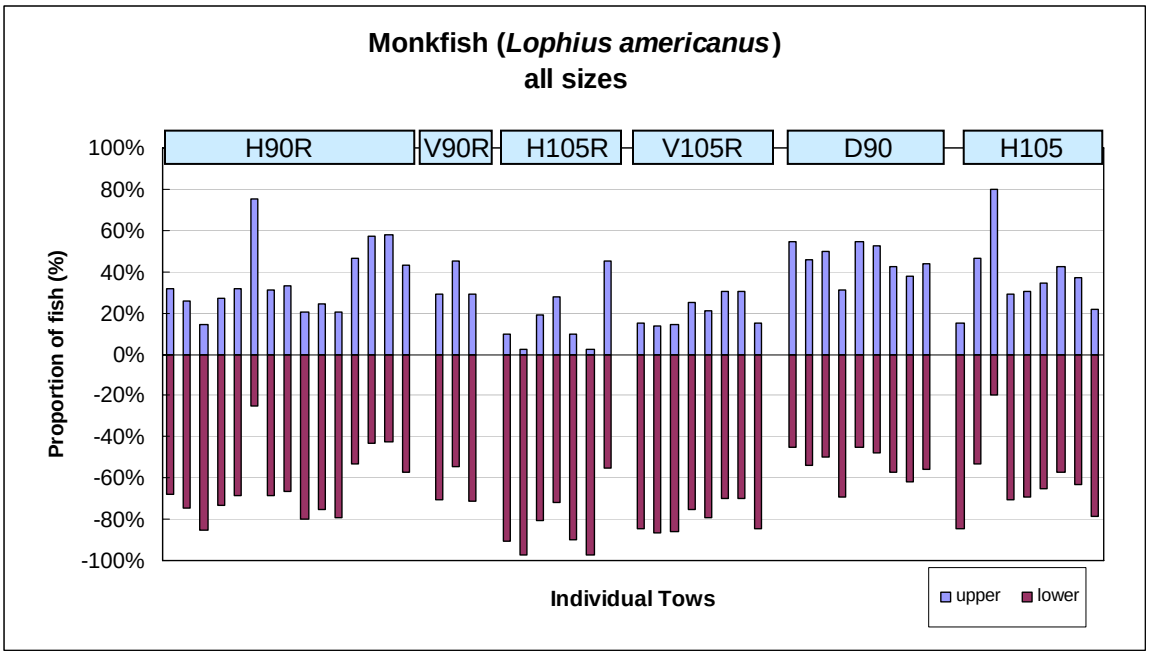


Figure 25. Separation of Witch flounder (greysole) by various grids from 2005 sea trials. Top: all fish; Bottom: legal size fish.



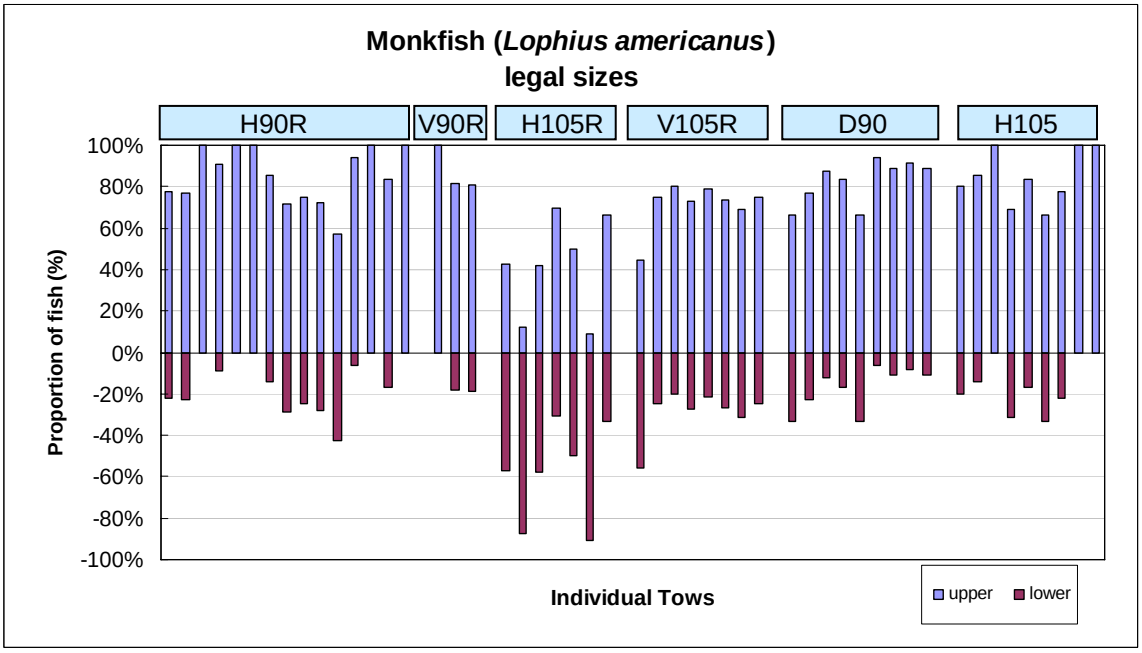
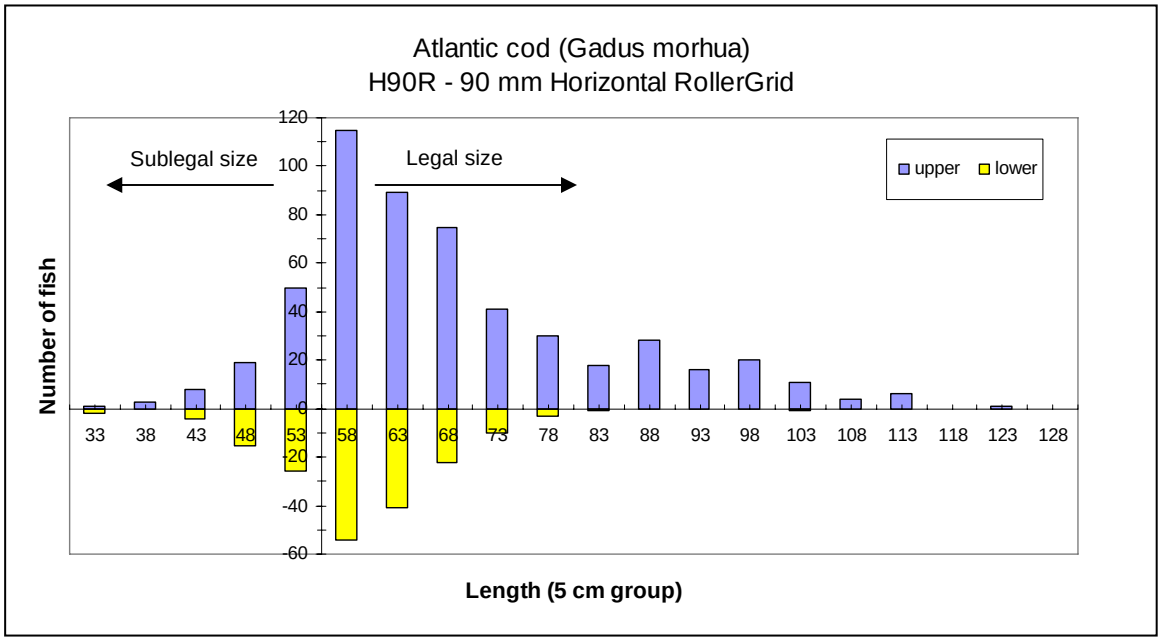


Figure 26. Separation of monkfish (goosefish) by various grids from 2005 sea trials. Top: all fish; Bottom: legal size fish.



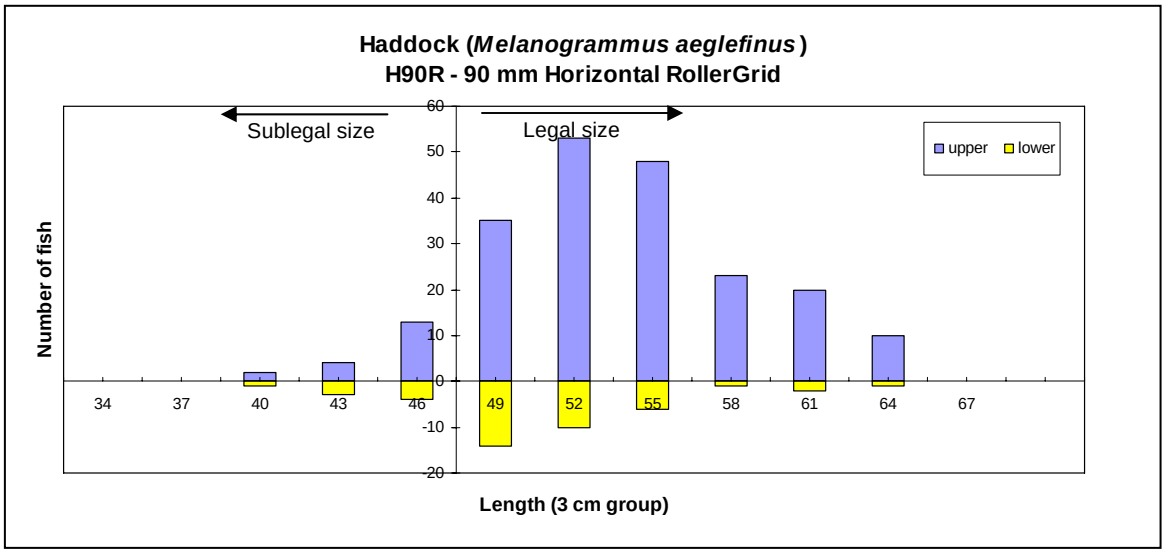


Figure 27. Size distribution of Atlantic cod (top) and haddock) from upper and lower codends using the 90 mm RollerGrid.

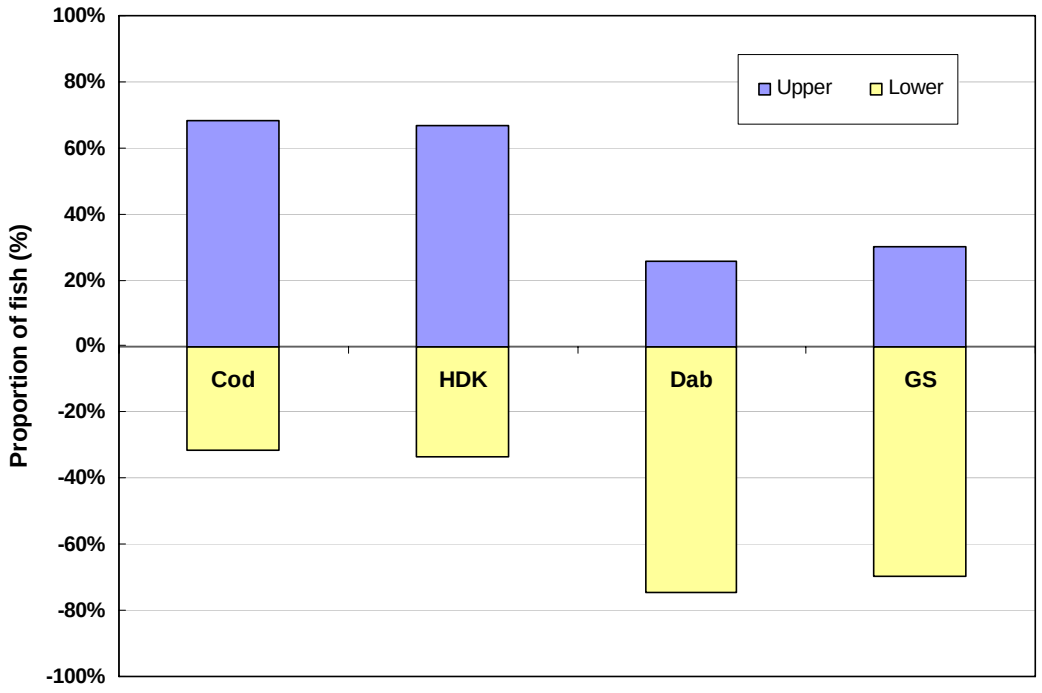
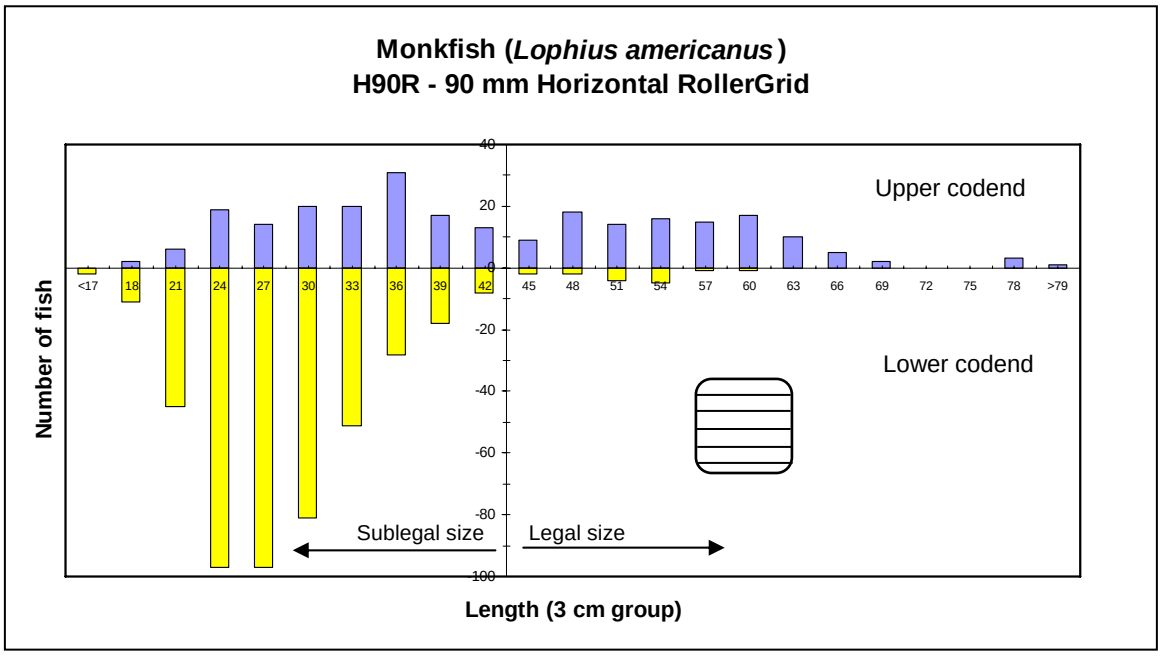


Figure 28. Separation of Atlantic cod (Cod), Haddock (HDK), American plaice (Dab) and Witch flounder (greysole, GS) by the 105 horizontal RollerGrid (H105R).



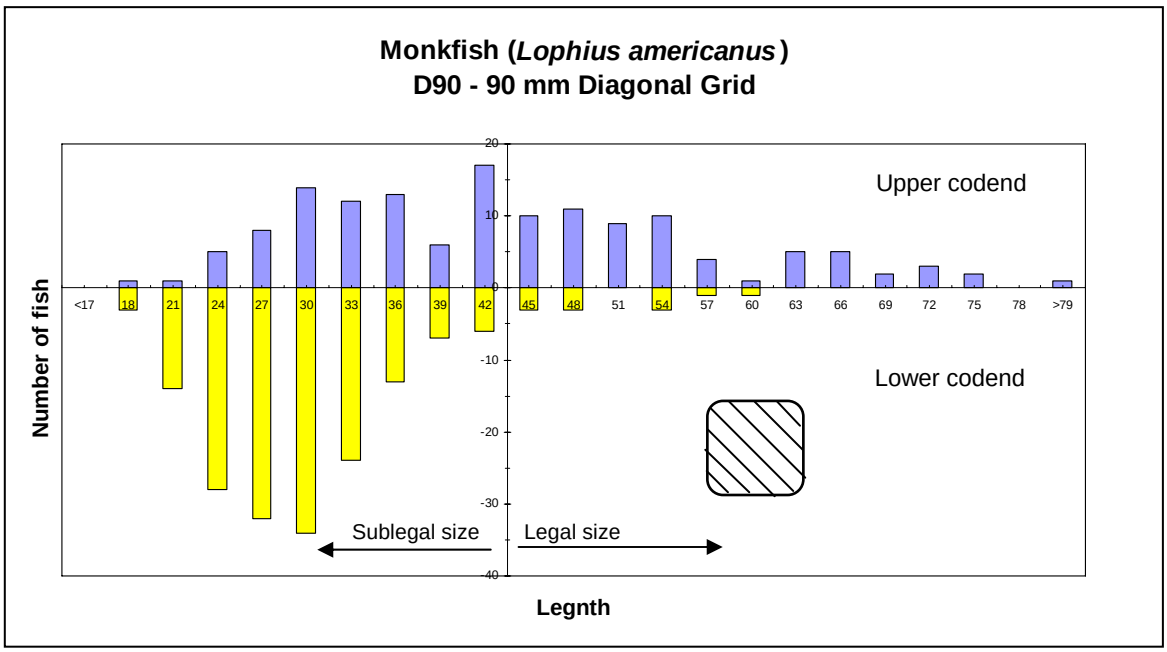


Figure 29. Size distribution of monkfish from upper and lower codends using the 90 mm RollerGrid (top) and the 90 mm diagonal grid (bottom)..

Appendix 1

Data Sheets from Sea Trials

October 2001, Trip 1 and 2

Date	Trip	Tow #	C/E	F. A.	Camera	Codend mesh	Cover mesh	Gear	Gear/Rigging notes
10/4	1	1	CTRL	1	N	6"	N/A	control 120" Icelandic Box trawl	
10/4	1	2	CTRL	1	N	6"	N/A	control	
10/10	2	1	CTRL	1	N	6"	N/A	control	
10/10	2	2	Exp	1	N	6"	3"	90mm vertical HDPE forward slant	3" upper cover, 6" codend
10/10	2	3	Exp	1	N	6"	3"	90mm vertical HDPE forward slant	hagfish barrel at grid
10/10	2	4	Exp	1	N	6"	3"	90mm vertical HDPE forward slant	a large halibut at grid
10/11	2	5	CTRL	1	N	6"	N/A	control	
10/11	2	6	Exp	1	Y	6"	3"	90mm vertical HDPE forward slant	
10/11	2	7	Exp	1	Y	6"	3"	90mm vertical HDPE forward slant	good video
10/12	2	8	CTRL	1	N	6"	N/A	control	lobster pot
10/12	2	9	Exp	1	Y	6"	3"	90mm vertical HDPE forward slant	
10/12	2	10	Exp	1	Y	6"	3"	90mm vertical HDPE forward slant	small grid flattened
10/12	2	11	Exp	1	Y	6"	No	90mm vertical HDPE forward slant	upper cover removed, camera above the grid exit

Species Abbreviations

Cod	Atlantic Cod (*Gadus morhua*)
HDK	Haddock (*Melanogrammus aeglefinus*)
GS	Grey Sole (witch flounder) (*Glytocephalus cynoglossus*)
BB	Blackback flounder (winter flounder) (*Psuedopleuronectes americanus*)
Red	Redfish (*Sebastes fasciatus*)
YT	Yellowtail flounder (*Limanda ferruginea*)
PLK	Pollock (*Pollachius virens*)
WHK	White Hake (*Urophycis tenuis*)
Monk	Monkfish (*Lophius americanus*)

C/E - Control (CTRL) or Experimental (Exp)
F.A. - Fishing Area, refer to Figure 6.

Tow duration 2 hours

October 2001, Trip 1

Tow 1	Control			
10/4	CTRL	CTRL	CTRL	CTRL
L (cm)	Cod	HDK	GS	YT
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31			1	2
32				
33				2
34				1
35			1	5
36				5
37				1
38			1	8
39				4
40				2
41				4
42			1	1
43				2
44			1	3
45				1
46				1
47				
48				2
49				3
50				5
51				3
52				2
53				
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104				
105				
106				
107				

October 2001, Trip 1

Tow 2	Control			
10/4	CTRL	CTRL	CTRL	CTRL
L (cm)	Cod	HDK	GS	YT
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30			1	
31			4	
32			2	
33			5	
34			3	
35			8	
36			5	
37			2	
38			4	
39			4	
40			1	
41			7	
42			4	1
43			2	1
44			4	
45				
46			1	
47				
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102				
103				
104				
105				
106				
107				

October 2001, Trip 2

Tow 1	Control			
10/10	CTRL	CTRL	CTRL	CTRL
L (cm)	Cod	HDK	GS	Red
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35			1	
36			1	
37			2	
38			1	
39			4	
40			2	
41			5	
42			4	
43			12	
44			8	
45			6	
46			4	
47			4	
48			2	
49				
50			1	
51	1		1	
52				
53			1	
54				
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66	1			
67				
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70	1			
71				
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73				
74				
75				
76	1			
77	1			
78				
79	1			
80				
81				
82	1			
83				
84				
85	1			
86				
87	2			
88				
89	1			
90				
91				
92	1			
93				
94				
95	1			
96	1			
97	1			
98	1			
99				
100				
101				
102				
103				
104				
105				
106				
107	1			

October 2001, Trip 2

Tow 2	Experimental					
10/10	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	GS	GS	Red	Red
20						
21						
22						1
23						7
24						5
25						10
26						17
27				1	1	30
28					2	15
29				1		7
30				3	1	8
31				4		10
32				7		7
33				10		2
34				8		1
35				15	1	1
36			2	5		1
37				10		
38			3	7		
39			1	12		
40			7	15		
41			6	14		
42			3	8		
43			5	14		
44			5	4		
45			3	4		
46			1			
47			3			
48				1		
49						
50				2		
51						
52				1		
53			1			
54						
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56						
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58						
59						
60						
61	1					
62	1					
63		1				
64						
65						
66		1				
67						
68						
69	1					
70						
71						
72	2					
73	1					
74						
75						
76						
77						
78	1					
79						
80	1					
81						
82						
83						
84						
85	1					
86						
87						
88						
89						
90						
91						
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94						
95	1					
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98						
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100						
101						
102						
103						
104						
105						
106						
107						

October 2001, Trip 2

Tow 3	Experimental			
10/10	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	GS	GS
20				
21				
22				
23				
24				
25				
26				
27				
28				2
29				9
30			1	6
31				13
32				6
33				17
34			2	16
35			1	8
36			1	13
37			1	10
38			3	7
39			1	11
40			1	6
41			1	5
42			1	9
43			1	8
44		1	4	3
45				3
46				1
47		1		
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75	1			
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77		1		
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80				
81				
82		1		
83				
84	2			
85				
86	1			
87				
88	2			
89				
90	1			
91				
92				
93				
94				
95				
96				
97				
98	1			
99				
100				
101				
102				
103				
104				
105				
106				
107				

October 2001, Trip 2

Tow 4	Experimental							
10/10	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	GS	GS	BB	BB	Red	Red
18								1
19								
20								1
21								
22								4
23								5
24								4
25								7
26								10
27								9
28				3				
29				5				3
30				5				2
31				9				1
32				10	1			
33				16				1
34				14	2			
35				6	2			
36				9	2			
37				10				
38				9	2			
39				17	2			
40				7	1			
41				5	1			
42				7	4			
43				3	3			
44				3	2			
45				1	1			
46					1			
47								
48								
49				1				
50								
51					1			
52								
53								
54								
55								
56								
57								
58								
59		1						
60								
61	1	1						
62								
63								
64		2						
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81	1							
82								
83	1							
84								
85	1	1						
86								
87	1							
88	1							
89								
90								
91								
92								
93	1							
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								

October 2001, Trip 2

Tow 5	Experimental			
10/11	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	GS	GS
20				
21				
22				
23				
24				
25				
26				
27			1	
28				
29				
30				
31			1	
32				
33				
34			2	
35			5	
36			2	
37			3	
38			1	
39			4	
40			6	
41			9	
42			9	
43	1		3	
44			9	
45			3	
46			1	
47			2	
48				
49			1	
50				
51				
52				
53				
54				
55				
56				
57				
58				
59	1			
60				
61				
62				
63				
64				
65	2			
66	1			
67				
68				
69				
70	1			
71	2			
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89	1			
90				
91	1			
92				
93				
94				
95				
96				
97				
98				
99				
100				
101				
102				
103				
104	1			
105				
106				
107				

October 2001, Trip 2
Tow 6 Experimental

10/11 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend GS	Cover GS	Codend Red	Cover Red
20								
21								2
22						1		1
23								6
24								6
25								15
26								17
27						2		13
28						4		4
29						2		5
30						5		7
31					1	8		6
32						5		2
33						3		4
34					1	4		4
35						10		1
36						10		2
37					2	4		
38		1				5		
39						3		
40					4	6		
41					2	11		
42				1	3	5		
43					3	1		
44					2	5		
45					1	3		
46	1							
47						4		
48								
49								
50					1			
51								
52								
53								
54								
55		1						
56								
57	1							
58								
59								
60		1						
61								
62								
63								
64	1							
65								
66	1							
67								
68								
69	1							
70								
71	1	1						
72								
73								
74		1						
75	1							
76								
77								
78								
79								
80								
81								
82	1							
83								
84								
85	1							
86	2							
87	1							
88								
89								
90								
91								
92								
93								
94								
95	1							
96								
97								
98								
99								
100								
101								
102								
103								
104								
105	1							
106								
107								

October 2001, Trip 2
Tow 7 Experimental

10/11 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend GS	Cover GS
20						
21						
22						
23						
24						
25						1
26						1
27						2
28						6
29						6
30					2	14
31						11
32					1	12
33					2	11
34					1	12
35						9
36					2	5
37					3	14
38						4
39					4	3
40					3	8
41						3
42					1	6
43					2	4
44					3	2
45					2	2
46						1
47						2
48						1
49				1		
50					1	1
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61	1					
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72		1				
73						
74		1				
75						
76						
77						
78		1				
79						
80						
81						
82						
83						
84						
85	2					
86						
87	1					
88						
89						
90	1					
91						
92						
93						
94						
95	1					
96						
97						
98						
99						
100						
101						
102	1					
103						
104						
105						
106						
107						

October 2001, Trip 2
Tow 8 Experimental

10/12 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend GS	Cover GS
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33					1	
34						
35					1	
36					1	
37						
38					1	
39						
40						
41					2	
42					1	
43						
44					1	
45					2	
46			1			
47			1		1	
48					1	
49			2			
50			2			
51						
52			3			
53			3			
54			1			
55						
56			2			
57						
58			2			
59			3			
60			3			
61			3			
62						
63			4			
64	1		1			
65			1			
66			3			
67			1			
68			1			
69						
70			1			
71						
72			1			
73			1			
74			2			
75						
76						
77						
78			1			
79						
80						
81						
82						
83						
84						
85						
86						
87						
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89						
90						
91						
92						
93						
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103						
104						
105						
106						
107						

October 2001, Trip 2

Tow 9 Experimental

10/12 L (cm)	Codend HDK	Cover HDK	Codend GS	Cover GS	Codend YT	Cover YT	Codend Red	Cover Red
16								
17								1
18								
19								
20								
21								1
22						1		
23								
24								1
25						1		
26				1				
27				1		2		
28						1		1
29				1		1		
30				1		1		
31				1		4		1
32				1		2		1
33				3	2	6		
34			1	1	1	3		
35				3	3	4		
36			1		1	3		
37				1	3	5		
38			1	2	1	3		
39		2			1	2		
40		1	1		2	3		
41			1	1	5	3		
42		2		2	5	1		
43		2			6			
44	2				3	1		
45		1			4	3		
46	1	4						
47	1	4			3	1		
48	3	2			4	3		
49	4	2			3			
50	2	9			1			
51	2	6			4	2		
52	1	4			1			
53	3	4			1			
54	5	5			2			
55	9	5						
56	2	2				1		
57	6	2						
58	5	3						
59	2	6						
60	5	2						
61	4	2						
62	3	3						
63	3	6						
64	2	2						
65		2						
66	2	2						
67	6	3						
68	1	4						
69		4						
70	5	3						
71	1							
72	1	2						
73	1							
74		1						
75								
76	1							
77								
78								
79								
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98								
99								
100								
101								
102								
103								

October 2001, Trip 2

Tow 10 Experimental

10/12 L (cm)	Codend Cod	cover Cod	Codend HDK	Cover HDK	Codend GS	Cover GS	Codend YT	Cover YT	Codend Red	Cover Red
20										
21										
22										
23										
24										
25										
26								1		
27								1		
28								2		
29								1		
30										1
31						2	3	3		
32						2	1	4		
33						2	1	2		
34							5	3		
35			1		2		6	1		1
36			1		1	4	4	4		
37			1	1			2	4		
38			1	1	1		8	6		
39			1	2		2	8	1		
40					1		7	4		
41						1	6	1		1
42			3	1	1		5	1		
43			5	1	2		4	4		
44			4	2			6	2		
45			3	3			7	1		
46			2	3	1	1	5	1		
47			5	5			3	2		
48			7	3			5			
49			7	9			2	3		
50			8	4			6	2		
51			8	1			2	2		
52		1	7	5				1		
53			9	5			1			
54			14	4			1			
55			5	2			1			
56			6	1			1			
57			7	3						
58			7	6						
59			7	6			1			
60		2	8	3						
61			9							
62			7							
63			9	4						
64			6	1						
65			5	3						
66			3	1						
67			4							
68			3	1						
69			2	1						
70			4							
71			1							
72			2	1						
73			1	1						
74			2							
75			1							
76			1	1						
77										
78										
79										
80			1							
81										
82										
83										
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106										
107										

October 2001, Trip 2

Tow 11 Experimental, no cover

10/12 L (cm)	Codend Cod	Codend HDK	Codend GS	Codend YT
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				2
30				1
31				
32				
33				1
34				
35				1
36			1	3
37				1
38				2
39				1
40				3
41			1	2
42		2		8
43				3
44				2
45		1		6
46				2
47		2		
48		4		2
49		3		1
50		3		3
51		1		1
52				1
53		1		1
54		3		1
55		2		
56		1		
57		3		
58		2		
59				
60		2		
61		4		
62				
63		1		
64		1		
65		1		
66				
67		1		
68				
69		1		
70				
71		1		
72				
73				
74				
75				
76				
77				
78				
79		1		
80				
81				
82				
83				
84				
85				
86				
87				
88				
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2002 Sea trials

Date	Trip	Tow	C/E	F.A.	Camera	Codend Mesh	Cover Mesh	Gear	Notes
4/27	1	1	CTRL	2	N	6"	N/A	120' Icelandic Box Trawl	
4/27	1	2	Exp	2	Y	6"	3"	80mm Vertical,forward slant	lobster pot just behind foot gear
4/27	1	3	Exp	2	Y	6"	3"	80mm Vertical,forward slant	
4/27	1	4	Exp	2	Y	6"	3"	80mm Vertical,forward slant	bad video, replaced stick
4/30	1	5	Exp	2	Y	6"	3"	80mm Vertical,forward slant	
4/30	1	6	CTRL	2	N	6"	N/A	120' Icelandic Box Trawl	lobster pot in net
4/30	1	7	Exp	2	Y	6"	3"	80mm Vertical,forward slant	Grid tied to frame, hung up, hauled back and reset
4/30	1	8	CTRL	2	N	6"	N/A	120' Icelandic Box Trawl	
5/1	1	9	CTRL	2	N	6"	N/A	120' Icelandic Box Trawl	
5/1	1	10	Exp	2	Y	6"	3"	80mm Vertical,forward slant	Grid tied tight to frame
5/1	1	11	Exp	2	Y	6"	3"	80mm Vertical,forward slant	increased grid angle by 11 deg
5/6	2	12	CTRL	3	N	6"	N/A	120' Icelandic Box Trawl	
5/6	2	13	Exp	3	Y	6"	3"	80mm Vertical,forward slant	80 cm vertical grid, belly ripped off
5/6	2	14	Exp	3	Y	6"	3"	80mm Vertical,forward slant	
5/6	2	15	Exp	3	Y	6"	3"	80mm Vertical,forward slant	getting dark, video getting worse
5/7	2	16	Exp	3	N	6"	3"	80mm Vertical,forward slant	snagged 55 min tow, n>s to getting shallow
5/7	2	17	Exp	3	N	6"	3"	80mm Vertical,forward slant	small grid tied down
5/7	2	18	Exp	3	Y	6"	3"	80mm Vertical,forward slant	small grid pushed down
5/7	2	19	CTRL	3	N	6"	N/A	120' Icelandic Box Trawl	
5/8	2	20	CTRL	3	N	6"	N/A	120' Icelandic Box Trawl	
5/8	2	21	Exp	3	Y	6"	3"	80mm Vertical,forward slant	
5/8	2	22	Exp	3	Y	6"	3"	80mm horiz,forward slant	tuned grid 90 deg bar horiz
5/8	2	23	Exp	3	Y	6"	3"	80mm horiz,forward slant	horiz grid
5/9	2	24	Exp	3	Y	6"	3"	80mm horiz,forward slant	increased grid angle by 11 deg, 90 mm horiz grid, belly torn
5/20	3	25	Exp	3	Y	6"	3"	80mm horiz no sm grid	80mm SS grid door hung on rock, net torn after bobbin, no small grid
5/20	3	26	Exp	3	Y	6"	3"	80mm horiz no sm grid	
5/20	3	27	Exp	3	Y	6"	3"	80mm horiz no sm grid	gear same as tow 26
5/21	3	28	Exp	3	N	6"	3"	80mm horiz no sm grid	gear same as 27 no camera recording unit
5/21	3	29	Exp	3	Y	6"	3"	80mm horiz+10 cm grid	new wire grid after SS grid on top of codend
5/21	3	30	Exp	3	Y	6"	3"	80mm horiz+10 cm grid	gear same as tow 29
5/22	3	31	Exp	4	N	6"	3"	80mm horiz+10 cm grid	gear same as tow 30 no recording, lg lob stuck on grid, 18" rockhoppers for s. georges
5/22	3	32	Exp	4	Y	6"	3"	80mm horiz+10 cm grid	tow cannot be used, twisted body in front of grid, fish were stuck there, no fish in upper cover
5/22	3	33	Exp	4	Y	6"	3"	80mm horiz+10 cm grid	gear same as tow 31
5/22	3	34	Exp	4	Y	6"	3"	80mm horiz+20x10 cm grid	change of escape grid, 20x10 cm grid, 40x70cm total
5/23	3	35	Exp	4	N	6"	3"	80mm horiz+20x10 cm grid	gear same as tow 34
5/23	3	36	Exp	4	Y	6"	3"	80mm horiz+20x10 cm grid	small holes cut in cover to allow small fish like herring to escape
5/23	3	37	Exp	4	Y	6"	3"	80mm horiz+20x10 cm grid	same as tow 36
5/24	3	38	Exp	3	Y	6"	3"	80mm horiz+20x10 cm grid	back to northern Georges
8/5	4	1	Exp	2	N	6.5"	3"	80mm horiz rollers	new rollers grid, 6.5" mesh size codend
8/5	4	2	Exp	2	N	6.5"	3"	80mm horiz rollers	same as tow 1, may have hit lobster pot at start
8/6	4	3	CTRL	2	N	6.5"	N/A	Control	2m log in the belly
8/6	4	4	Exp	2	Y	6.5"	3"	80mm horiz rollers	lobster pot in front of extension, bad video
8/6	4	5	Exp	2	Y	6.5"	3"	80mm horiz rollers	old lobster pot in front of grid, bad video
8/7	4	6	Exp	2	Y	6.5"	3"	80mm horiz rollers -bar	took off last bar of grid at the bottom, 8:35 hang up brought back and reset added 10min
8/7	4	7	Exp	2	Y	6.5"	3"	80mm horiz rollers -bar	same as tow 6, lobster pots in front of trawl, thermograph deployed
8/7	4	8	Exp	2	Y	6.5"	3"	90 mm horiz rollers	new 90mm rollers grid,180mm at bottom, short rollers
8/8	4	9	Exp	2	Y	6.5"	3"	90 mm horiz rollers	same as tow 8
8/8	4	10	Exp	2	N	6.5"	3"	90 mm horiz rollers	same as last without camera
8/8	4	11	Exp	2	N	6.5"	3"	90 mm horiz rollers+panel	a guiding panel installed
8/8	4	12	Exp	2	N	6.5"	3"	90 mm horiz rollers+panel	same as last, big electric ray may have blocked grid.
8/9	4	13	Exp	2	Y	6.5"	3"	90 mm horiz rollers+panel	same gear as last with camera
8/9	4	14	Exp	2	Y	6.5"	3"	90 mm horiz rollers+panel	guiding panel moved 2 mesh toward the grid
8/9	4	15	Exp	2	Y	6.5"	3"	90 mm horiz rollers+panel	added 2 pieces of chain between the guiding panel and the grid

Species Abbreviations

Cod	Atlantic Cod (*Gadus morhua*)
HDK	Haddock (*Melanogrammus aeglefinus*)
GS	Grey Sole (witch flounder) (*Glytocephalus cynoglossus*)
BB	Blackback flounder (winter flounder) (*Psuedopleuronectes americanus*)
Red	Redfish (*Sebastes fasciatus*)
YT	Yellowtail flounder (*Limanda ferruginea*)
PLK	Pollock (*Pollachius virens*)
WHK	White Hake (*Urophycis tenuis*)
Monk	Monkfish (*Lophius americanus*)

C/E - Control (CTRL) or Experimental (Exp)
F.A. - Fishing Area, refer to Figure 6.

Tow duration 2 hours

April 2002, Trip 1

Tow 1 Control

4/27 L (cm)	Codend Cod	Codend HDK	Codend Dab	Codend GS	Codend YT	Codend BB
16						
17						
18						
19						
20						
21						
22			1			
23			2			1
24			3			
25			1		1	
26			7	1		
27			11			
28			6		1	
29			7	1	1	1
30			6			1
31			11		1	1
32			11		7	
33			5		1	2
34			14			1
35			8	1	3	
36			8		1	1
37			9			1
38			8			
39			9			
40			5			
41	1		4			1
42			4			
43			1			1
44		1	2			
45		2	2			1
46		1	2			
47			1			
48		2	1			
49		2				
50	1	1				
51	2					
52	3	1				
53	1					
54						
55	1					
56	2	1				
57						
58	1					
59	1					
60	2					
61						
62	1					
63						
64						
65						
66						
67						
68						
69						
70	1					
71						
72						
73						
74	1					
75	2					
76						
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78						
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80						
81						
82	3					
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April 2002, Trip 1

Tow 2 Experimental

4/27 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
16												
17												
18												
19												
20								3				
21						5						
22					1	3						
23						1						
24					1	1		1				
25					1	4						
26					1	6						
27					3	5		1		1		1
28					3	1		1		1		
29					3	8				4		
30						9				2		
31					3	9				4		
32					1	6			1	4		
33						5				5		1
34					3	2			1	1		
35					4	3			2	1	1	
36					2	5				1		
37				1	1	2					1	
38					5	3						
39			1		3							
40					5	2		1				
41				2	3							
42					2							
43			1	1		1						
44					3	1						
45												
46				2	1	1						
47				1								
48				1	2							
49												
50				1								
51			1		1							
52			1		1							
53	1											
54												
55	1											
56			1									
57												
58												
59		1										
60	1											
61												
62												
63	1											
64												
65												
66	2											
67	1											
68												
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80												
81												
82												
83												
84	1											
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

April 2002, Trip 1

Tow 3

4/27 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
16												
17												
18												
19												
20						3						
21					2							
22					1	5						
23					4	5				1		
24					2				1			
25					5	5						
26					2	6			1			
27					4	2			1			
28					1	8			2			1
29					11	4				1		
30					3	7		1	2	2		
31				1	1	4			1	9		1
32					8	5			3	3		
33					12	12			3	2		
34					5	3		1	3	2		1
35					8	1			1	1		
36					7	1				1		
37					5	4					1	
38				1	6	5				1		
39					5		1				1	
40				2	4						1	
41					4							
42					6							
43			1		4							
44	1											
45				2	2	1						
46			2									
47				1	2							
48		1	1		1							
49												
50	1		1	1								
51					2							
52												
53	1											
54	1											
55												
56	1				1							
57												
58	1											
59	1											
60												
61												
62												
63	2											
64												
65												
66												
67												
68												
69	1											
70												
71												
72	1											
73												
74												
75												
76												
77												
78	1											
79												
80	1											
81												
82	1											
83												
84												
85												
86												
87												
88												
89												
90												
91												
92												
93	1											
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

April 2002, Trip 1

Tow 4

4/27 L (cm)	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
16										
17										
18						2				
19						1				
20				14		1				
21				2						
22				11						
23				3						
24			2	3						
25				2						
26			1	7		1				
27			3	3			1			
28			7	8						
29			3	10		1				
30			6	8		1		1		
31			5	7		1		1		
32			4	7				1		
33			7	6			2			
34			6	3				1		
35			8	3			2			1
36			1	3				1	1	
37			6	4						
38			4	2		1	1			
39			5	1						
40	2		3	2						
41			6	3						
42	2		7							
43			3							
44										
45			3	1						
46	1			1						
47	4									
48			2							
49	1		1							
50	2									
51	3									
52										
53	2									
54	1									
55										
56										
57	1									
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

April 2002, Trip 1

Tow 5	Experimental									
4/30	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17										
18						1				
19										
20						4				
21					1	2		1		
22						1				
23						1				
24						1				
25						1		1		
26						4				
27						5				
28					3	2		1		2
29					3	4				
30					2	4				
31					1	3				3
32					3	6				2
33					2	1				2
34					2	3				
35					3	2			1	1
36					1				2	1
37					2	1			1	
38			1		4	1				
39					4	1				
40					3	1				
41					3	1				
42					1	2				
43					4	1				
44			1	2	2	2				
45			2	3	2	1				
46		1	3		3					
47			3							
48			3	4						
49	1	1	3	1	1					
50	2				1					
51	1		3	1	1					
52	2									
53	2		2	1						
54			1							
55	1		1	1						
56	1									
57			1							
58										
59	1		1							
60			1		1					
61										
62										
63										
64	1			1						
65	2	1								
66	1									
67	1									
68										
69										
70	1									
71	1									
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84	1									
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

April 2002, Trip 1

Tow 6	Control					
4/30	Control	Control	Control	Control	Control	Control
L (cm)	Cod	HDK	Dab	GS	YT	BB
16						
17						
18						
19			4			
20			3			
21			2			
22			4			
23						
24			2			
25			4		1	
26			9			
27			5			
28			13			
29			7		2	1
30			13		1	
31			9		1	
32			12	1	7	
33			17		7	1
34			20			
35			8		3	
36			15		3	
37		1	14		1	1
38			12		1	1
39		2	7			1
40			11			
41			8	1		1
42			6			
43		3	7			
44		3	5			
45			3			
46	1	1	5			
47		1	3			
48		2	2			
49	1	1				
50		1				
51	1	3	1			
52	1	1	2			
53			1			
54		1				
55	1	1				
56		1				
57	1					
58	1	1				
59	1					
60	3					
61	2	1				
62						
63						
64						
65						
66	1					
67	2					
68	1					
69						
70						
71	1					
72						
73	1					
74						
75						
76						
77						
78						
79						
80	1					
81						
82						
83						
84						
85						
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						

April 2002, Trip 1

Tow 7 Experimental

4/30 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
16												
17						2						
18						3						
19						1		2				
20						6						
21						5		1				
22						11						
23						3		1				
24					1	5		1				
25					2	7				1		
26						5		3				
27						8		3	1			
28					2	2	1					
29					1	8				1		
30					1	7				1		
31					3	4				1		
32					2	6		1	1	2	1	1
33					2	10				1		1
34					1	6				3		
35			1		4	4			3			
36				1	5	6			1		1	
37					10	4			1		1	
38					3	2					1	
39			1	1	3	3						
40					4	1						
41				1	3	2						
42				1	3	1					1	
43					1	1						
44	1			1	5							
45			2	2	5							
46		1		2	2	1						
47	1		1	2	1							
48		2		1	1							
49			4									
50			1									
51			3									
52				1								
53	1	1	1									
54	1											
55	1		1									
56				1								
57	2			1								
58	1	1										
59	2											
60	1	1										
61	1											
62												
63												
64												
65	2		1									
66	1	1										
67	1											
68												
69	1											
70	1											
71												
72												
73												
74		1										
75												
76												
77		1										
78												
79												
80												
81												
82												
83												
84												
85												
86												
87												
88												
89	1											
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

April 2002, Trip 1

Tow 8 Control

4/30 L (cm)	Codend Cod	Codend HDK	Codend Dab	Codend YT	Codend BB
16					
17					
18					
19					
20			2		
21			4		
22					
23			2		
24					
25			3		
26			5		
27			6	1	
28			13		
29			7	1	
30			9	1	
31			13		1
32			12	3	
33			5	3	
34			11		
35			11		
36			13	1	1
37			5	3	1
38			7		1
39			7		
40			9		
41			4		
42		1	4		
43		1	8		1
44			2		
45		4	1		
46			2		
47		1	3		
48			3		
49		2	3		
50	1		2		
51					
52		1	2		
53		1			
54		2			
55	1				
56					
57	1				
58					
59	1				
60	1	1			
61	1				
62					
63					
64	1				
65					
66					
67					
68					
69					
70	1				
71					
72					
73					
74	2				
75					
76	1				
77					
78	1				
79					
80					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90	1				
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					

May 2002, Trip 1

Tow 9 Control

5/1 L (cm)	Codend Cod	Codend HDK	Codend Dab	Codend GS	Codend YT
16					
17					
18					
19					
20					
21			1		
22					
23					
24					
25			1		
26			1		
27			2		
28			3		
29			5		
30			4		
31			4		1
32			2		2
33			7		1
34			8		
35			5	1	
36			8		2
37			7		1
38		2	8		
39			12		
40			2		
41			6		
42		3	2		
43		4	3		
44		3	3		
45		2	2		
46	1	1	1		
47	1	1			
48			2		
49		3	2		
50		3			
51	1	2			
52		2			
53					
54	2	2	1		
55		1			
56					
57					
58	1	1			
59					
60					
61		1			
62	1	2			
63	1				
64		1			
65	1				
66					
67					
68					
69					
70					
71					
72		1			
73					
74	1				
75					
76					
77					
78					
79	1				
80					
81					
82					
83					
84					
85					
86	1				
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					

May 2002, Trip 1

Tow 10 Experimental

5/1 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend YT	Cover YT	Codend BB	Cover BB
16										
17										
18						2				
19						1				
20						4				
21						2				
22						2				
23						3				
24						4				
25						3				
26					1	1				
27						2				
28						4		1		
29					2	5		1		
30						7	1	3	1	
31					3	2	1	3		
32					2	5	1	3		
33					1	8		5		
34					4	2	1	1		
35					3	2				
36					2	3				
37					3	1			1	
38					2	1				
39					1	4				
40						2				
41					2					
42				1	1		1			
43					2					
44			2		2	1				
45				2	1					
46					2					
47					1	1				
48					1					
49				1						
50			1							
51			1							
52					1					
53	1			1						
54	1									
55	2		1							
56	1	1								
57			1							
58										
59	1	1								
60										
61			1							
62		1								
63										
64										
65	1									
66										
67	1									
68										
69										
70										
71	1									
72										
73										
74										
75		1								
76	2									
77										
78		1								
79										
80										
81										
82	1									
83	1									
84	1									
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 1

Tow 11	Experimental							
5/1	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	YT	YT
16						1		
17								
18								
19					3			
20					3			
21					2			
22					3			
23					3	1		
24					8			
25						1		
26					3			
27					2			
28					3	1		
29					3	1		
30					2	2	1	
31					4	1	2	
32					2		2	
33					6		2	
34					2		3	1
35					4	1	2	
36					3			
37				1	1			
38					2			
39					4			
40				1	2			1
41					3			
42	1				1			
43								
44			1					
45			1	1				
46				1				
47	1							
48	1		1					
49								
50	1	1						
51	1		1					
52				2				
53								
54								
55								
56								
57	2							
58								
59								
60		1						
61	1							
62								
63	1							
64								
65								
66								
67	2							
68	1							
69	1							
70	1							
71								
72								
73								
74		1						
75								
76								
77	1							
78	2							
79								
80	1							
81								
82	1							
83								
84								
85	1							
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

May 2002, Trip 2

Tow 12	Control				
5/6	Control	Control	Control	Control	Control
L (cm)	Cod	HDK	Dab	YT	PLK
16					
17					
18					
19					
20					
21					
22					
23				2	
24				1	
25					
26			1	3	
27				4	
28			3	4	
29					
30			3	1	
31			2	3	
32			3	2	
33			3		
34			9	4	
35			3	6	
36			3	8	
37			3	8	
38			1	3	
39			1	8	1
40			1	15	
41			1	14	
42			1	17	
43		1	1	8	
44			1	2	
45				5	
46				3	
47		2		1	
48		3	1		
49					
50	1				
51		1			
52					
53	1	1			
54		1			
55		2			
56		1	1		
57					
58		3			
59	3	3			
60	1				
61	1	1			
62		2			
63	4				
64	1	2			
65	1				1
66	2				
67	1				
68	3				1
69					
70	1				1
71					
72	1				1
73	2				3
74	1				
75	4				
76	3				3
77	2				2
78					1
79	1				2
80					
81	3				1
82					
83					1
84					1
85					
86					
87					
88					1
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					

May 2002, Trip 2

Tow 13 Experimental

5/6 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend YT	Cover YT	Codend PLK	Cover PLK
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31						1		
32								
33								
34								
35								
36				1				
37				1				
38		1						
39						2		
40		1						
41					1	1		
42		1						
43				1				1
44								
45				1				
46				3				
47				4				
48								
49				4				
50								
51								1
52				1				
53	1							
54				1				
55		1		5				1
56		2						
57				1				1
58		2						
59		2						1
60	3	4						1
61	3	1		1				
62	4			2				
63		1						
64	2	2						
65	3							2
66	4	3						
67		4						2
68	1	3						
69	1							
70	2							
71								
72								
73	2							
74								
75	2							
76								
77								
78	2							
79								
80								
81								
82	1							
83	1							
84								
85	1							
86								
87								
88	1							
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

May 2002, Trip 2

Tow 14 Experimental

5/6 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend YT	Cover YT	Codend BB	Cover BB
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32						1		
33						4		
34						5		
35					1	10		
36						6		
37					1	10		
38					1	4		1
39					2	3		
40					2	3		
41					3	3	1	1
42	1				1	1	1	1
43		2			1	2	1	
44		2		1	1	2		1
45		4				1	2	1
46		1			2		1	
47		2			1	2	1	3
48		1			1		5	
49		2					4	
50				3			4	2
51	2	1		1			2	2
52	2	1		1			1	2
53	1	1		3				
54	2	1		1			1	2
55		3	1	1			2	
56	2			1			1	1
57	4	2		1				1
58	3							1
59		1						
60	3	2					1	
61	8	3		1				
62	6	1						
63	10	5	1					
64	10	2						
65	3	1						
66	10	2						
67	15	4						
68	13	6						
69	8	3						
70	17	3						
71	9	4						
72	4							
73	4	3						
74	7	1						
75	4	1	1					
76	7	1						
77	4	1						
78	3	1						
79	1	1						
80	5	1						
81		1						
82	1	2						
83	3							
84	2							
85	2							
86		2						
87		1						
88	3							
89								
90								
91								
92	1							
93								
94								
95	1							
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

May 2002, Trip 2

Tow 15 Experimental

5/6	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	YT	YT	BB	BB	PLK	PLK
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										1
28										
29										
30						2				
31						2				
32						9				
33				2		6				
34						14				1
35						14				1
36		1			2	14				
37				1	1	15				2
38		1			2	7				1
39		1		1	3	7				
40					1	6				1
41				2	3	6		1		
42	1			1	2	3				
43		2			3	3		1		
44	1				3	2	1	1		
45		2		2	1	1				
46	3			1	2	2	3			
47		1		6	1					
48				6		2		2		2
49				3			1	2		
50	1	1	1	1			3	2		1
51	1		1	4						
52	3						1	3		
53	2			1			4	2		
54		1	1	2			2			
55	2	2		1			1	2		
56	3	2		1			2			1
57	2			2				1		
58	6	1	1	2						
59	7	1	1	4			1			
60	11	2		1						
61	8	3		1						1
62	14	4	2	3						
63	7	9								1
64	5	4		1						
65	7	3								1
66	5	1								
67	7	3								
68	12	2								
69	6	2								
70	6	3								
71	8	2								
72	6	3								
73	8									
74	4	4								
75	2									
76	1									
77	5									
78	2	1								
79	1									
80	2									
81	1									
82										
83										
84	1									
85										
86	1	1								
87										
88	1									
89										
90										
91	1									
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102	1									
103										
104										
105										
106										
107										

May 2002, Trip 2

Tow 16 Experimental

5/7	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	YT	YT	BB	BB	PLK	PLK
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32						2				
33						1				
34		1				1				
35										
36						1				
37						4				
38					1	1				
39		1		1		6				
40				1		3				
41					1					1
42					1	2				
43						1				
44						1				1
45		1		1						
46				3						
47				4		2				
48				3	1	1		1		
49				2				1		
50		1		1						
51										
52								1		
53										
54										
55			1							
56				2						
57										
58	2	3								
59		1	1							
60	1	1		1						
61	3	2								
62	3	1								
63	6	1								
64	8	4								
65	5	1		1						
66	6	1								
67	6									
68	3	1								
69	3									
70	1	1								
71	2	2								
72		1								
73	2									
74	1									
75										
76	1									
77										
78										
79										
80	1									
81										
82										
83	1									
84										
85										
86										
87										
88										
89	1									
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 2

Tow 17 Experimental

5/7 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend PLK	Cover PLK
16												
17												
18												
19												
20												
21												
22												
23										1		
24										1		
25										6		
26										4		
27										8		
28						1				3		
29										2		
30										5		
31					1					2		
32				1		1				2		
33					1	1			1	4		
34						1				4		
35						1			3	5		
36						3			2	8		
37						2			2	5		
38									4	5		
39					1	1		2	2	6		
40						1			3	4		
41									5	3		
42									4	2		
43									6	5		
44									2	2		
45									3	2		
46										1		
47												
48												
49					1							
50												
51												
52				1								
53												
54												
55		1										
56												
57												
58	1			1								
59												
60	1											
61				1								
62	2											
63				1								
64												
65	1											
66		1										
67	1											
68	2	1										
69	1											
70	2											
71												
72	1											
73												
74		1										
75												
76	1										1	
77												
78												
79												
80												
81												
82												
83												
84											1	
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

May 2002, Trip 2

Tow 18 Experimental

5/7 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend YT	Cover YT	Codend PLK	Cover PLK
16										
17										
18										
19										
20										
21										
22										
23						1		2		
24						1		3		
25								8		
26								12		
27						1		7		
28						1		4		
29						1		4		
30						2		4		
31				1				1		
32						3	1	7		
33					1	3		7		
34					1	4	2	6		
35						1	1	7		
36							1	8		
37						1	2	3		
38						3	2	7		
39					2	1	6	3		
40					1		2	4		
41					1		3	9		
42		1		1			2	3		
43						1	2	4		1
44				1			2	7		
45							1	3		
46							1	1		
47				1						
48								1		
49										
50				1						
51										
52										
53										
54										
55										
56		1								
57										
58										
59										
60										
61										
62	1									
63	1									1
64	1									
65	1									
66										
67									1	
68	1			1						
69										
70										
71									1	
72										
73	1									
74										
75										
76		1								
77	1								1	
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										1
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 2

Tow 19	Control				
5/8	Control	Control	Control	Control	Control
L (cm)	Cod	HDK	Dab	GS	YT
16					
17					
18					
19					
20					
21					
22					
23					
24					
25			1		
26					2
27					1
28			1		3
29					2
30					2
31			1		2
32					2
33			4		1
34			4		1
35			4		3
36					
37			3		3
38			2		8
39			2		6
40			1		11
41			1		8
42			2		8
43			1		4
44			1		1
45		1	1		1
46					1
47	1			1	
48		1			
49					
50		1			1
51					
52					
53					
54		3			
55					
56					
57					
58		1			
59	1				
60	1				
61	2				
62	1				
63	2				
64	4				
65	4				
66	1				
67	4				
68	7				
69	5				
70	1				
71	1				
72	2				
73	2				
74	3				
75	2				
76	1				
77					
78					
79					
80					
81	1				
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					

May 2002, Trip 2

Tow 20	Control			
5/8	Control	Control	Control	Control
L (cm)	Cod	HDK	Dab	YT
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				2
29				
30			1	
31				2
32			2	1
33			2	1
34			1	2
35				2
36				3
37				3
38			1	7
39				
40				3
41			2	2
42			1	1
43				
44				2
45				
46				
47				
48	1			
49				
50				
51				
52	2			
53	1			
54				
55				
56	1			
57	1			
58	1			
59				
60	1			
61	1			
62	1			
63				
64	1			
65				
66	1			
67				
68	1			
69	1			
70	1			
71	1			
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				
101				
102				
103				
104				
105				
106				
107				

May 2002, Trip 2

Tow 21	Experimental									
5/8	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	Dab	Dab	GS	GS	YT	YT	PLK	PLK
16										
17										
18										
19										
20										
21										
22										
23										
24								1		
25							1	1		
26								3		
27								2		
28								1		
29								1		
30										
31				1						
32				1				1		
33			1					3		
34				2				1		
35			1	1				2		
36				1			1	4		
37			1					3		
38								1		
39								4		
40				1			2	5		
41							2	1		
42							1	2		
43		1				1		2		
44								1		1
45								3		
46										
47										
48							1			1
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59		1								2
60	1	1								
61										
62	1	1								
63	1									1
64	1	1								
65	2	4								
66	2	1								
67	2	2								
68	2									
69	2									2
70	2									
71	1									
72	3									
73									1	
74	1									1
75										
76										
77										
78										1
79										
80										
81										
82										
83										
84		1								
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 2

Tow 22 Experimental

5/8 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend PLK	Cover PLK
16												
17												
18												
19												
20												
21												
22												
23												
24												
25										1		
26												
27												
28										3		
29										3		
30												
31												
32										2		
33					1	1				3		
34						1				2		
35								1				
36												
37												
38						1			1			
39									1	1		
40										3		
41				1						5		
42				1					1	3		
43				1					1			
44										1		
45									1			
46												
47										1		
48				1								
49												
50												
51												
52												
53		1										
54												1
55												
56												
57												
58		2										
59	1											
60	1	1									1	
61		1										
62											1	
63	1											1
64	2											
65	1	2										
66												
67	2											1
68	2	1										1
69	2											
70	3											
71											1	
72												
73											1	1
74											2	
75											1	
76												
77											1	
78	2											
79												
80												
81												
82	1											
83												
84												
85												
86												
87												1
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

May 2002, Trip 2

Tow 23 Experimental

5/8 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend YT	Cover YT	Codend PLK	Cover PLK
16										
17										
18										
19										
20										
21										
22										
23										
24								1		
25								2		
26								5		
27								5		
28								6		
29								3		
30				1				4		
31								2		
32						1		7		
33						1		6		
34				1		2		9		
35							2	9		
36							2	9		
37								7		
38							1	13		
39							6	4		
40							3	10		1
41							6	14		
42							4	8		
43							4	5		
44							3	7		
45							5	3		
46							1	1		
47							1	2		
48				1				2		
49										
50										
51				1						
52										
53										
54										
55										
56	1								1	
57	2									
58	1	1								
59	1									
60	1	2								
61	4								2	
62		1								
63	1									
64	3	1								
65	4									1
66	2	1								1
67	1									
68	1	1								1
69	4									
70									1	1
71									1	
72	1									
73										
74	1									
75	1									
76	1									
77										
78	1									
79										
80	1									
81										
82	1									
83										
84										
85										
86	1									
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 2

Tow 24	Experimental									
5/9	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	YT	YT	BB	BB	PLK	PLK
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33					1	2				
34						6				
35						1				
36						2				
37						1				
38						4				
39						1				
40										
41						3				
42						1				
43										
44				2	1					
45										
46										
47				2						
48				1						
49				1						
50	1			1				1		
51				3						
52										
53	2			1						
54				1					1	
55		1								
56		1								
57	1			1					1	
58		1		1						
59	3	2								
60	2									
61	1	2		1						
62	6	2								
63	3									
64		1								
65	3									
66	2									
67	1								1	
68	1	1								
69	1									
70										
71	1									
72										
73	1									
74										
75	2									
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 3

Tow 25	Experimental					
5/20	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	YT	YT	PLK	PLK
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29			1			
30						
31			1	1		
32			1	1		
33						
34				1		
35				4		
36				5		
37				1		
38				2		
39				2		
40				2		
41				2		
42		1				
43				1		
44						
45				1		1
46						
47		1	2			
48			2			
49			2	1		
50			2			
51	1	1	4			
52		1	2			
53			1			
54			2			
55			1			
56			1			
57			2			
58	1					
59		1				
60						
61						
62						
63						
64						
65						
66						
67	1					
68		1				
69						
70						
71						
72						
73						
74						
75		1				
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
86						
87						
88						
89	1					
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						

May 2002, Trip 3
Tow 26 Experimental

5/20 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend YT	Cover YT
16								
17								
18								
19								
20								
21								
22								
23								1
24								
25								1
26								1
27								4
28								4
29								5
30								4
31							1	3
32						1		3
33						1	1	5
34								6
35							1	5
36						1	2	5
37						2	1	7
38					1		2	5
39							6	6
40						1	4	1
41					1			3
42							1	2
43						1	2	
44								
45								1
46		1					2	1
47								
48		1						
49							1	
50				1				
51								
52				1				
53								
54				2				
55	1							
56								
57								
58								
59		1						
60								
61								
62				1				
63	1	2						
64		1						
65		3						
66								
67	1	1						
68	1	2						
69		2						
70	1	3						
71		2						
72	1	1						
73	1	4						
74		1						
75	2							
76								
77								
78		1						
79								
80		1						
81		3						
82								
83		1						
84								
85								
86		1						
87								
88								
89								
90								
91								
92								
93								
94		1						
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

May 2002, Trip 3
Tow 27 Experimental

5/20 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
16										
17										
18										
19										
20										
21										
22										
23										
24										1
25										2
26										4
27										6
28										16
29									1	11
30									1	11
31						3				9
32						2				1
33					2	2				1
34										3
35						1				6
36					2	1			1	6
37						1			3	6
38						1			6	5
39										4
40						1	1		2	1
41									3	5
42					1				1	2
43										
44						1			2	1
45				1						
46										1
47										
48										
49					1					
50										
51				1						
52				1						
53				1						
54				1						
55										
56										
57										
58										
59		1								
60										
61				1						
62	1		1	1						
63										
64				1						
65	1									
66										
67										
68										
69		2								
70		3								
71										
72		1								
73		1								
74		3								
75										
76										
77										
78		2								
79	1									
80										
81										
82										
83		1								
84										
85										
86										
87										
88										
89										
90										
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92										
93										
94										
95										
96										
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101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 3

Tow 28	Experimental										
5/21	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	PLK	PLK
16												
17												
18												
19												
20												
21												
22												
23												
24										2		
25									1	2		
26					1					7		
27										13		
28										7		
29									2	5		
30						2			1	2		
31									1			
32									1	6		
33					2	2			2	14		
34					1	1			1	15		
35					1	1			4	18		
36					1				5	19		
37									4	13		
38									6	4		
39							1		6	7		
40									6	7		
41						1			5	3		
42									5	8		
43									2	7		
44									2	3		
45		1							1	2		
46						1			1	2		
47												
48										1		
49												
50										1		
51												
52												
53												
54												
55											1	1
56											1	1
57												
58											1	1
59												
60		1										
61		1										
62												
63		1										
64												
65	1											
66		3									1	1
67		3									1	1
68		2									1	1
69		2										
70		4									1	1
71		1										
72		1										
73		3										
74		2										
75		3										
76												
77		1										
78		1										
79												
80												
81	1											
82		1										
83		2										
84												
85												
86												
87			1								1	1
88		1										
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100		1										
101												
102												
103												
104												
105												
106												
107												

May 2002, Trip 3

Tow 29	Experimental					
5/21	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	Dab	Dab	YT	YT
16						
17						
18						
19						
20						
21						
22						
23						
24						1
25						
26						1
27						2
28						1
29						3
30						
31					1	4
32				1		2
33						3
34						3
35			1		4	
36			3		5	3
37					3	
38			1		2	
39			1		4	
40					3	
41			1		3	
42					8	
43					4	
44					2	
45					1	
46					1	
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64	1					
65						
66						
67	1					
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78	1					
79						
80						
81						
82						
83						
84						
85						
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						

May 2002, Trip 3

Tow 30	Experimental									
5/21	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										2
26										1
27										2
28										4
29										8
30									1	3
31						3			1	1
32					1				1	3
33					2	1				
34					2				1	5
35					3				1	5
36					1				2	2
37					1	2			3	1
38					1				3	
39					1		1		3	1
40									2	
41									5	
42			2	1					2	
43									4	
44				1					1	
45									1	
46										
47				1	1					
48					1					
49									1	
50										
51			1							
52										
53										
54	1									
55			1							
56										
57										
58	1									
59										
60										
61			3							
62										
63										
64			1							
65										
66	1		1							
67										
68	1									
69	3									
70										
71	1									
72	3									
73	1									
74	2									
75	1									
76	2									
77										
78	1									
79	1									
80										
81	1									
82										
83										
84	1									
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 3

Tow 31	Experimental									
5/22	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										1
29										3
30										
31										1
32									1	1
33									1	
34					1					
35										
36									3	
37										
38									3	
39				1			1		3	
40									1	
41					1				5	
42			1		1				3	
43									2	
44			1		1				5	
45									4	
46									1	
47									1	
48	1								3	
49			1						1	
50									1	
51										
52			1	1					1	
53										
54			2							
55										
56			1							
57				1						
58			2	1						
59			1							
60			1	1						
61	1		2							
62			1							
63			1							
64			1							
65			3							
66			1							
67			3							
68										
69	1		2							
70	1		2							
71										
72										
73										
74										
75										
76	1									
77										
78										
79			1							
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 3

Tow 32 Experimental

5/22 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28									1	
29										
30					1					
31										
32										
33									3	
34									2	
35					1				1	
36									2	
37										
38									3	
39					1				2	
40									6	
41					1				3	
42									3	
43					1				3	
44									2	
45									2	
46										
47					1				1	
48									2	
49							1		1	
50			3							
51										
52			3							
53			4							
54			4							
55			1							
56			3							
57			7							
58			6							
59			1							
60			7							
61	1		6							
62			6							
63			6							
64	1		8							
65			3							
66			3							
67										
68			5							
69			2							
70										
71										
72			2							
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98	s									
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 3

Tow 33 Experimental

5/22 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend YT	Cover YT
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29							1	
30								1
31							1	2
32							1	1
33								1
34								1
35				1				
36							2	
37							3	1
38							4	
39							1	
40							6	
41							3	
42							1	
43								
44								
45				1			2	
46							1	
47							1	
48							1	
49				1				
50	2				1			
51				1				
52			1	1				
53			1	2				
54			2	1				
55			1	1				
56	1		3					
57			2					
58			2	2				
59	1		8	1				
60			7					
61			11					
62			11					
63			16					
64			13					
65			18					
66			15					
67			11					
68			11					
69			13					
70			10					
71	1		8					
72			8					
73			5					
74	2		10					
75			1					
76			4					
77			2					
78			2					
79			0					
80			1					
81			0					
82			1					
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

May 2002, Trip 3

Tow 34 Experimental

5/22 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										1
29										
30										
31										1
32										5
33										2
34					2					2
35						1				1
36									2	
37									2	
38									1	1
39					1				1	1
40									3	
41									3	
42									1	
43									3	1
44								1	3	1
45										
46									1	
47									1	
48										
49		1							2	
50									1	
51										
52				1						
53			1							
54										
55										
56			1	2						
57			1							
58			1							
59			2	1						
60			3	1		1				
61			2							
62	1		2							
63			3							
64			2							
65			4							
66										
67			1	1						
68			3							
69			2	1						
70			3							
71			2							
72										
73										
74			1							
75										
76										
77										
78										
79										
80										
81	1									
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

May 2002, Trip 3

Tow 35 Experimental

5/23 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend YT	Cover YT
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								3
29								3
30						1		
31								2
32								1
33							1	2
34								
35					1			2
36								1
37								2
38								1
39							4	
40							3	
41							4	
42						1	3	1
43							2	
44								
45							1	1
46							1	
47			1	3			1	
48				1			2	
49				5				
50			2	5			2	
51			3	7				
52			3	11				
53			11	13				
54			12	21				
55			7	24				
56			9	18				
57			15	14				
58			13	16				
59			22	10				
60			12	12				
61				8				
62				6				
63		1		7				
64				6				
65			11	3				
66			6	5				
67			6	2				
68			6	1				
69			6	2				
70			5	1				
71			1					
72			3					
73			2	2				
74			1	1				
75								
76			1					
77			1					
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

May 2002, Trip 3

Tow 36 Experimental

5/23 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB	Codend PLK	Cover PLK
16														
17														
18														
19														
20														
21														
22														
23				1										
24				1										
25														
26														
27										1				
28										1				
29										1				
30														
31					1					1				
32					1	1			1	1				
33					2				1	2				
34					2	1			1	1				
35									1					
36														
37					1				1	1				
38					1				4					
39									2					
40									1	2				
41									4					
42									3					
43					2				5	1				
44									3					
45									6					
46														
47				1						2				
48				1	1									
49			3	1						1				
50			1	2			1							
51	1		2	5							1			
52			5	4										
53			4	8										
54			7	5	1									
55			12	7										
56	2		14	4										
57	1		14	10										
58			17	8							1			
59		1	16	4										
60			16	6										
61	1		10	5										
62			17	1										
63			11	2										
64			12	2									1	
65			14	1										
66	2		10	3										
67			7	1										
68			3	3										
69			4											
70			3											
71			1											
72			1											
73			1											
74														
75			1											
76														
77														
78														
79														
80														
81														
82														
83														
84														
85														
86														
87														
88														
89														
90														
91														
92														
93														
94														
95														
96														
97														
98														
99														
100														
101														
102														
103														
104														
105														
106														
107														

May 2002, Trip 3

Tow 37 Experimental

5/23 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
16												
17												
18												
19												
20												
21												
22												
23												
24				2								
25												
26						1						
27				1								
28										1		
29				1						2		
30					1	1				2		
31			1	1		1						
32					1	1			2	3		
33						3				3		
34					1	1			3	3		
35								1		2		
36												
37					1				2			
38							1					
39										1		
40							1		2			
41							1		1			
42				1			1		1			
43									1			
44		1										
45				1					2		1	
46				2								
47			1	3					2			
48		1	3	2								
49			3	2								
50			3	2			1					
51			7	4					1			
52			5	7							1	
53			14	11								
54			11	13								
55			18	14								
56			19	14								
57			25	15								
58	1		23	16								
59	1	1	30	16								
60	1		20	14								
61	1		21	6								
62			19	7								
63			19	4								
64			15	2								
65			12	2								
66	1		14	2								
67			11	2								
68			9	3								
69			4									
70			3	1								
71			3									
72			7									
73			5									
74			1	1								
75			2									
76												
77												
78												
79												
80												
81												
82												
83												
84												
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

May 2002, Trip 3

Tow 38 Experimental

5/24 L (cm)	Codend Cod	Cover Cod	Codend Dab	Cover Dab	Codend YT	Cover YT
16						
17						
18						
19						
20						
21						
22						
23						
24					1	1
25		1				1
26						6
27						5
28						3
29						1
30						2
31						1
32				2		3
33			1	1	1	4
34						9
35			3		3	5
36			1		2	6
37				1	2	7
38					7	1
39			1	1	5	4
40				1	7	8
41					2	2
42					3	5
43					9	5
44					3	2
45					2	
46						
47						
48						1
49					1	
50					1	
51		1				
52						
53						
54						
55						
56						
57						
58						
59						
60	1					
61						
62						
63						
64						
65	1					
66						
67						
68						
69						
70						
71		1				
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83	1					
84						
85						
86						
87						
88						
89						
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						

August 2002, Trip 4

Tow 1	Experimental											
8/5	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	BB	BB
16												
17												
18						1						
19						1						
20				1		1						
21				1		6						
22				3		3		3				
23				3		3						1
24				2		11		4				
25						10		3				
26						10		1				
27					1	23		3				
28					2	21		5				
29						19		11				
30					1	25		8				
31						33	1	5		1		1
32				2	3	26	1	8		1		
33				1	2	18		7		1		
34				1	2	14		7				
35					1	9		6				
36				1	1	2		10				
37				1	2	9	1	6				
38						7	2	3		1		
39				1	2	4		4				
40					3	3		3				
41				1		1		3				
42				2	2	2	3	1				1
43						3						
44				2		4	1	1				
45				2	1	2						
46				1		1						
47				1	2	1		1				
48			1			1						
49				1	1	1						
50				3								
51						1						
52				2			1					
53												
54												
55			1	1								
56												
57												
58												
59												
60			1			1						
61												
62												
63												
64												
65												
66												
67												
68												
69												
70		1										
71												
72												
73												
74												
75												
76												
77												
78												
79												
80												
81												
82												
83												
84												
85												
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106												
107												
108												
109												
110												
111												
112												

August 2002, Trip 4

Tow 2	Experimental							
8/5	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS
16						1		
17								
18				1				
19						1		
20				1		1		
21						5		
22						2		
23						6		1
24						5		1
25				1		4		1
26						7		4
27						7		3
28						9		9
29				1		9	1	13
30						15	2	15
31				1	1	7	1	19
32				1		13	2	14
33						13	1	21
34				3	1	12	2	16
35				1	1	5	1	16
36				2	1	4	1	15
37				2	1	3	2	10
38				2		1	2	18
39				1	1	2	1	8
40				1		4		5
41				3		4	3	5
42				2	2			5
43				5				3
44				3		1		
45				4	1			
46				1		1	2	1
47				1		1	1	
48				2				1
49								
50				1	2			
51				1				
52		1		1				
53								
54								
55								
56		1						
57								
58								
59								
60				1				
61								
62								
63		1						
64				1				
65								
66								
67		1						
68								
69		1						
70								
71								
72		1						
73		1						
74		2						
75		2						
76								
77								
78		2						
79		2						
80		1						
81		1						
82		2						
83								
84		1						
85		1						
86								
87								
88								
89		1						
90								
91								
92								
93		1						
94								
95								
96								
97								
98		1						
99								
100		1						
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								

August 2002, Trip 4

Tow 3	Experimental				
8/6	Codend	CONTROL	CONTROL	CONTROL	CONTROL
L (cm)	Cod	HDK	Dab	GS	YT
16					
17					
18					
19					
20					
21					
22					
23				1	
24			2		
25			1		
26			3	1	
27			2		
28			1		
29			3	1	
30			5		
31			7	2	
32			5	1	
33			7	4	1
34			5	1	
35			6		
36			2	2	
37			5	2	
38			2	2	
39			4	3	
40			1	3	
41			1	1	
42			1	2	
43			3		
44			1	1	
45					
46				1	
47			1	1	
48			2		
49				1	
50					
51				1	
52					
53					
54					
55					
56					
57					
58					
59					
60		1			
61					
62					
63					
64					
65					
66	1				
67					
68					
69					
70	2				
71	1				
72	1				
73					
74	1				
75					
76	1				
77					
78					
79					
80					
81					
82					
83					
84					
85	1				
86					
87	1				
88					
89					
90					
91	1				
92	1				
93					
94					
95					
96	1				
97	1				
98					
99					
100					
101					
102					
103					
104					
105	1				
106					
107					
108					
109					
110					
111					
112	1				

August 2002, Trip 4

Tow 4	Experimental									
8/6	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17										
18						1				
19						1				
20				3		1		1		
21						2				
22						5				
23				1		4		1		
24						5	1			
25						4		1		
26						5				
27				1		6		6		1
28						4		9		
29				1	1	5	1	7		
30						2	2	12		1
31					1	8	1	11		
32					1	3		9		
33					6	5	2	10	1	
34					2	5	1	12		
35					1	5		16		1
36					1	3	2	22		
37				3	2	2	2	17		
38					1	1	4	24		
39					1	4	1	15		
40								13		
41				2	1	2	1	7		
42				2				5		
43				1				3		
44			1	2	1	1				
45								1		
46				3	1		2	1		
47				2						
48								1		
49	1	1		1						
50			2							
51		1			2	1				
52	1									
53		1		1						
54	1	1								
55										
56		1		1						
57										
58										
59		1		1						
60										
61										
62		1								
63		1								
64										
65										
66										
67										
68				1						
69		1								
70										
71										
72										
73										
74										
75										
76	1	4								
77										
78										
79		4								
80		1								
81		1								
82		1								
83		2								
84		1								
85		1								
86		1								
87		4								
88		1								
89	1	2								
90		1								
91		1								
92		2								
93										
94										
95		1								
96		2								
97										
98		1								
99		2								
100										
101		1								
102										
103										
104										
105		1								
106										
107										
108		1								
109										
110										
111		1								
112										

August 2002, Trip 4

Tow 5	Experimental									
8/6	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										1
17										
18						1				
19						2				
20				1		3				
21						3				
22						2		1		
23						3		1		
24						2				
25	1					5				
26						9		1		
27						9		1		
28						14		5		
29	3					12		7		
30	7					16	1	4	1	
31	5					17		4		
32	10					35	1	10		3
33	2					19	1	13		
34	1					17	2	5		
35	3					15	3	5		1
36	1					11	2	6		2
37	6					13	2	7		
38						3		6		
39	1					1	2	12		
40	1					2	1	7		
41	1					2	1	3		
42	4					2	2	1		
43						1		3		
44						1		1		
45	1									
46	3	2				3				
47	1					1				
48	1			1		1		1		
49										
50										
51	1									
52	1	2								
53										
54										
55										
56										
57		1								
58										
59										
60										
61										
62										
63				1						
64										
65										
66										
67										
68										
69		1								
70										
71										
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74										
75										
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80										
81										
82										
83										
84										
85										
86		1								
87		2								
88										
89										
90										
91										
92										
93		1								
94										
95										
96										
97										
98										
99										
100										
101										
102		1								
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										

August 2002, Trip 4

Tow 6	Experimental									
8/7	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17										
18						1				
19						2				
20				1						
21						1				
22										
23					1	3				
24						2		1		
25						6				
26						7				
27						5		3		
28					1	7		3		
29					1	10		9		
30				2	3	10		4		
31				2	8	9	1	12		
32					3	6		5		
33						15	1	9		2
34					5	8		4		2
35				1	2	3	2	6	2	
36					2	8	1	4		
37					4	8	2	4		
38				2	3	1		5		1
39				1	4	3	1	3		1
40				2	1	3	1	2		
41				1	5	1	1	2		1
42					2	1	1			
43				2	2	1	1	1		
44				3				1		
45				1		1	1			
46						1	2			
47				1	2	1				
48			1			2				
49				1						
50			1	1						
51		1								
52										
53										
54										
55										
56				1						
57										
58										
59										
60	1									
61		1								
62										
63										
64		1								
65		1								
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76		3								
77		1								
78										
79		1								
80										
81										
82		1								
83										
84										
85										
86		1								
87										
88										
89		1								
90										
91										
92		1								
93										
94										
95										
96		1								
97		1								
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										

August 2002, Trip 4

Tow 7	Experimental									
8/7	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17										
18										
19						2				
20										
21					1	4				
22						1		1		
23				1		2				
24						4				
25					1	5				1
26					1	6		2		
27					1	5		2		
28					3	10	1	5		
29						13		5		
30					3	19	1	10		1
31				1	2	13		12		2
32					5	16		7		2
33					4	15		5		3
34					3	13	1	6		1
35				1	2	6		5		
36					4	5		5		1
37					1	9	2	9		
38					1	5		5		1
39					2	2	1	3	1	
40					2	1	1	2		
41					1			1	1	
42						3		2		
43					1	2		1		
44					1		1			
45					1	1				
46					1	1				
47								1		
48						2				
49		1			1					
50										
51					1					
52										
53										
54										
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
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67										
68										
69										
70										
71										
72										
73		1								
74										
75										
76										
77										
78										
79										
80										
81										
82	1									
83										
84										
85		1								
86										
87										
88										
89										
90										
91										
92										
93										
94										
95		1								
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110		1								
111										
112										

August 2002, Trip 4

Tow 8	Experimental									
8/7	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17										
18										
19										
20						1				
21								1		
22				1						
23					1	2		1		
24						1				
25						2				
26				2		2		2		
27						1		1		
28						1		5		
29						4	1	6		
30						1		8		
31				1		4	1	7		
32						2		9		
33					1		2	5		
34						1	2	2		
35					1			6		
36						1	1	8		
37					1		1	3		
38					2	2	1	1		
39					1	1	1	5		1
40				2	1	1	1	3		
41				1	1		6			
42					1					
43				1						
44				1	1		3	1		
45				1	2		2			
46				1		1		1		
47							2	1		
48										
49				1						
50										
51										
52										
53				1						
54										
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										
70	1									
71										
72										
73										
74										
75										
76										
77										
78										
79										
80	1									
81		1								
82										
83		1								
84										
85										
86										
87										
88										
89										
90										
91										
92	1									
93										
94										
95		1								
96										
97	1									
98										
99										
100										
101		1								
102										
103										
104										
105										
106										
107										
108										
109										
110		1								
111										
112										

August 2002, Trip 4

Tow 9	Experimental							
8/8	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS
16								
17								
18								
19						1		
20						3		1
21						5		
22						5	1	
23						4		
24					2	7		
25					1	6		
26						8		
27					1	5		1
28					2	11		4
29					2	3		6
30					3	11		5
31					3	7	1	4
32				2	6	8	1	5
33				1	2	14	1	5
34					2	7		5
35					2	7	2	6
36				1	2	5	1	7
37				1	3	8	1	4
38					1	7	1	1
39					1	1		3
40				1		4	2	5
41					1	2		1
42				2	1	1	1	1
43				1		1		
44				1	1	1		
45					1	1	1	
46				1		2		
47				1				
48				1				
49				1				
50								
51						1		
52						1		
53				1		1		
54								
55				1				
56		1						
57								
58								
59								
60								
61		1						
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78		1						
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95		1						
96								
97								
98		2						
99								
100								
101								
102								
103		1						
104								
105								
106								
107								
108								
109								
110								
111								
112								

August 2002, Trip 4

Tow 10	Experimental									
8/8	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16						1				
17										
18						1				
19										
20						2				
21						4		1		
22						4		1		
23						7				
24								1		
25						4		2		
26						11		2		
27					2	6		4		
28						5		5		
29					4	14		12		
30					2	12		12		1
31						14	1	8		1
32					2	16		7		3
33				1	2	10		8		
34					2	10		5		
35					1	10		5		1
36					3	6	2	7		
37						6	1	10	1	1
38					1	5		7	1	
39						1	2	2		
40					1	1		1		
41				1	2			3		
42							2			
43					1			1		
44										
45					1					
46						1		1		
47										
48										
49										
50					1		1			
51										
52										
53										
54										
55										
56										
57						1				
58										
59		1								
60										
61		1								
62										
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76		1								
77										
78		1								
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90	1									
91		1								
92										
93										
94										
95										
96										
97										
98										
99										
100		1								
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										

August 2002, Trip 4

Tow 11	Experimental									
8/8	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16										
17						1				
18										
19								1		
20						2		3		
21				1	3	4		3		
22						3		4		
23						6		9		
24						4		4		
25					1	4		5		
26					2	10		11		
27					1	9	1	18		
28					2	9	1	19		
29						4	2	30		
30						7	4	31		
31					4	3	5	23		
32						3	4	20		1
33					5	4	1	13		3
34					3	5	4	12		
35					3	5	3	19		1
36					3	10	3	14		
37				1	1	7	3	24		
38						1	3	8		
39						2	1	13		
40				4	1	2	2	8		
41				1	2	1		3		
42				1	2			2		
43				4		2	6			
44				3	2	1	3	2		
45			1	5	1	1				
46				2		2		1		
47			1	6						
48		1		5						
49				1				1		
50				5						
51				9			1			
52				4						
53										
54				3						
55				3						
56								1		
57		1	1							
58										
59				1						
60										
61										
62										
63										
64										
65				1						
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76		2								
77										
78										
79										
80										
81										
82										
83										
84										
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106										
107										
108										
109										
110										
111										
112										

August 2002, Trip 4

Tow 12	Experimental							
8/8	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	HDK	HDK	Dab	Dab	GS	GS	YT	YT
16								
17								
18								
19		1				1		
20						1		
21				3				
22		1		3		5		
23		2		4	1	4		
24		1		7		3		
25			1	10		6		
26				8	3	12		
27			6	12	2	18		
28			8	16		18		
29			10	21		25		
30			5	24	5	25		
31		1	12	36	1	15		
32		1	12	23	3	20	1	1
33			16	17	1	11		
34			6	10	3	12		2
35			7	13	2	5		
36			4	10	1	10		
37			1	14	3	11		
38			7	10	4	5		
39			7	3	1	5		
40			7	3	2	4		
41		1	1	3	1	3		
42			2	4	2	1		
43	1		1	1	1	2		
44	1		1	2		4		
45			2	4		2		
46				1				
47		1		1	2			
48						1		
49				1	1			
50			1			1		
51	1							
52		1						
53								
54				1				
55								
56		1						
57	1							
58								
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112								

August 2002, Trip 4

Tow 13 8/9 L (cm)	Experimental Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
16										
17										
18										
19										
20										
21						3		1		
22							1			
23								1		
24					2	3		1		
25						2		3		
26					1	1		6		
27					1	4	2	6		
28					6	5	1	6		
29					5	5	3	13		
30				1	7	9	7	10		
31				1	6	7	5	9		
32					6	6	1	3		1
33					5	9		6		1
34					8	7	3	6		
35					5	6	4	8		
36					6	5	3	3		
37			1		7	4	1	7		
38					3	3	5	10		
39					2	5		5		
40				2	2	3	4	7		
41				1	4	5	2	2		
42					1	2	1			
43					4	2	1	1		
44					1	5	1			
45					5					
46				1	1	2				
47			1		1	1				
48				1	1		1			
49										
50					1					
51			1			1	1			
52					2					
53										
54										
55										
56						1				
57			1		1					
58										
59										
60										
61										
62										
63										
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67										
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70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82	1									
83										
84										
85										
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93										
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111										
112										

August 2002, Trip 4

Tow 14 8/9 L (cm)	Experimental Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
16										
17										
18										
19										
20										
21				1		4		5		
22							1	4		
23					1		1	3		
24						3		3		
25								1		
26						3		8		
27						1	2	11		
28				1	1	3	3	17		
29					5	4	6	29		
30					1	2	5	21		
31					1	1	2	16		
32					2		3	11		
33				1	2	1	7	16		
34					1	4	6	10		
35					3	2	5	9		
36					4	3	2	8		
37					1	1	2	9		
38				2			6	5		1
39				1	3	2	3	14		
40				1		1	5	8		
41					2		5	4		
42				2	1		2			
43				1	1		1	2		
44		1	1	1	1	1	1			
45				1			3	1		
46					1		1			
47										
48				1			1			
49		1		1			1			
50					1					
51				1						
52				1						
53		1								
54										
55				1						
56										
57	1									
58										
59		1								
60										
61				1						
62	1	1								
63		1								
64		1								
65		1								
66		1								
67										
68		1								
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79		1								
80										
81										
82										
83										
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August 2002, Trip 4

Tow 15	Experimental											
8/9	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	BB	BB
16												
17												
18												
19						1						
20				1		1						
21				1		2						
22						2						
23					1	2						
24						5						
25					1	6				1		
26						2						
27					3	4						
28					4	5	4					
29					2	5						
30					2	5	2			3		
31				1	4	6	1					
32					5	3	3			2		
33					4	9	2			2		
34				1	4	3	2			1		1
35					3	5	1			2		
36					2	3	1			1		
37					2	1	1					
38				3	4	4	1					
39				2	3	2	5					
40			1	1	2		2					
41				1	1		3					
42							2					
43				2		1	5					
44				1		2	1					
45			1	2	1	1	1					
46				1	1		1					
47				1								
48				1			1					
49					1							
50				1		1						
51												
52												
53	1											
54							1					
55												
56												
57												
58												
59												
60		1										
61												
62				1								
63												
64												
65												
66												
67	1											
68												
69		1										
70												
71												
72												
73												
74												
75												
76												
77												
78												
79												
80												
81												
82												
83												
84		1										
85												
86												
87		1										
88												
89												
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Fall 2003 Sea Trials

Date	Tow	C/E	F.A.	Camera	Codend Mesh	Cover Mesh	Gear	Notes
7/21	1	CTRL	2	N	6.5"	N/A	Commercial Trawl	See notes
7/21	2	exp	2	N	6.5"	3"	90mm Horiz rollers+panel	90mm rollersgrid with guiding panel same as rig in aug 2002
7/24	3	exp	2	Y	6.5"	3"	90mm Horiz rollers+panel	video
7/24	4	exp	2	Y	6.5"	3"	90mm Horiz rollers+panel	same as last, repair made to the grid 14:02 hung up
7/25	5	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	new rig, top exit to cover
7/25	6	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	gear same as last
7/25	7	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	gear same as last
7/26	8	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	one piece of chain from rock hopper removed
7/26	9	exp	2	Y	6.5"	3"	90mm Horiz rollers+panel+top exit	bad video
7/26	10	exp	2	Y	6.5"	3"	90mm Horiz rollers+panel+top exit	gear same as last
7/28	11	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	hang up and hauled back 1hr 25m tow
7/28	12	exp	2	Y	6.5"	3"	90mm Horiz rollers+panel+top exit	90 mm rollersgrid, bad video
7/28	13	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	gear same as last, camera frame removed
7/29	14	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	gear same as last
7/29	15	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	gear same as last
7/30	16	exp	2	N	6.5"	3"	90mm Horiz rollers+panel+top exit	gear same as last
7/30	17	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	new gear black tunnel
7/30	18	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
7/31	19	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	the tunnel moved 2.5 mesh towards the grid, 2 floats
7/31	20	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/15	21	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/15	22	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	stuck on bottom at 1210 lobster pots in nets ahead of grid, 20 min tow
9/15	23	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same hang up 50 min tow, major tear at sweep
9/15	24	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/16	25	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last, stuck on bottom 1hr 5m tow
9/16	26	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/16	27	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/16	28	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/17	29	exp	2	N	6.5"	3"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/17	30	exp	2	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	6.5" codend on ttop, missing one float above grate see picture
9/17	31	exp	2	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	upper and lower codends both 6.5" with Chaffing gear
9/22	32	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/22	33	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/22	34	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	grid bottom bend straightened
9/22	35	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/23	36	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/23	37	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	top window frame broke, replaced with 2 extra floats
9/23	38	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	one bar cut near bottom of grate, see diagram
9/23	39	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	1hr 6m tow, maybe lobster gear hauled up
9/24	40	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/24	41	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	SST frame on top of tunnel
9/24	42	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/24	43	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/25	44	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last
9/25	45	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	cut the bar at the bottom of the grid
9/25	46	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	chain on sweep
9/25	47	exp	1	N	6.5"	6.5"	90mm Horiz rollers+Black tunnel+top exit	gear same as last, hydraulic failure most fish got away, no measurement

Species Abbreviations

Cod	Atlantic Cod (*Gadus morhua*)
HDK	Haddock (*Melanogrammus aeglefinus*)
GS	Grey Sole (witch flounder) (*Glytocephalus cynoglossus*)
BB	Blackback flounder (winter flounder) (*Psuedopleuronectes americanus*)
Red	Redfish (*Sebastes fasciatus*)
YT	Yellowtail flounder (*Limanda ferruginea*)
PLK	Pollock (*Pollachius virens*)
WHK	White Hake (*Urophycis tenuis*)
Monk	Monkfish (*Lophius americanus*)

C/E - Control (CTRL) or Experimental (Exp)
F.A. - Fishing Area, refer to Figure 6.

Tow duration 2 hours

July 2003, Trip 1

Tow 1	Control					
7/21	Codend	Codend	Codend	Codend	Codend	Codend
L (cm)	Cod	HDK	Dab	GS	YT	BB
15						
16						
17			1			
18			2			
19			3			
20						
21			1			
22			3			
23			4	1		
24			2			
25			5	1		
26			7	3		
27			11	3		
28			23	1		
29			20			
30			19	6		
31			30	6		
32			38	12	1	
33			30	3	1	
34			17	7		
35			22	8		
36			20	8		
37			15	5		
38			12	8	1	
39			12	11		
40			14	12		
41			7	6		
42			4	10		
43			11	4		
44			4	7		1
45			6	3		
46			4	3		
47			1	1		
48			1			
49			1			
50		1	1			
51		1		2		
52			1			
53	1	2				
54		1				
55		1				
56						
57		1				
58						
59	1					
60	1					
61	1					
62						
63	1					
64						
65	1	1				
66						
67	1					
68	1					
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83	1					
84						
85						
86						
87						
88						
89						
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92						
93						
94						
95						
96						
97						
98						
99						
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102						
103						
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111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

July 2003, Trip 1

Tow 2	Experimental											
7/21	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	Pollack	Pollack
15						1						
16												
17												
18						1						
19						1						
20						4						
21						1						
22						2		1				
23												
24						1						
25						8		2				
26						2		1				
27						9		2				
28						6	1	6				
29					1	7		2				
30						5	1	7				
31					1	6	1	7				
32						7	3	10				
33					2	8	1	10				
34						3	2	6		1		
35					1	6	2	5				
36		1				2	2	4				
37		1			1	6	1	5				
38			1			3	2	5				
39					1	2		4				
40					2	3		3				
41							5	1				
42				1			1					1
43					3		1	2				
44				2	2	1		1				
45				1	2		2					
46				2			1	1				
47		1		2			3					
48		1		1								
49		2		1								
50		1	2	2		1						
51		1	2	2		1						1
52		4	1	3		1						
53		1	3	3								
54		7	2									1
55		3	2	1	1							
56		7	4	2								
57		5	5									
58		9	5	2								
59		6	5	1								
60		2	6									
61		8	11									
62		9	3									
63		9	3									
64		7	6									
65		8	6									
66		6	2									
67		4	1									
68		7	2									
69		2	2									
70		2	1									1
71		1	1									
72		3	1									
73		4	1									
74		4										
75		1	1									
76		1										
77		1										
78		1										
79		1										
80		1	1									
81												
82		2										
83		2										
84		1										
85												
86												
87												
88		1										
89												
90		1										
91												
92		1										
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118				(plus 1 dab @ 13 cm in the cover)								
119												
120												

July 2003, Trip 1

Tow 3	Experimental									
7/24	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
15										
16										
17										
18										
19										
20						2				
21						2				
22						2				
23										
24						1		1		
25					2	3		1		
26						3		1		
27					1	2		1		
28					2	7		1		
29						9		1		
30					2	6	1			
31					4	4	1	3		
32					1	3	4	5		
33						4		6		1
34				1		4	3	6		
35					2	1	1	1		
36					1	1	1	5		
37					6	2	2	7		
38					1		2			
39					2	3		2		
40				1		2	1	2		
41					2		1	1		
42					2		3	1		
43				1	2	1	1	1		
44				1	1		1	1		
45				1	1			2		
46			1	4						
47	1			2			1			
48			2		1					
49				1	1	1				
50				2						
51	1			1			1			
52				1		1				
53		1								
54	1									
55				1						
56				4						
57	1	1	1							
58	2		1							
59	1		1	1						
60	4	2		2						
61		1								
62										
63	1	1								
64	2									
65				1						
66	2	1								
67		3								
68		3								
69		2								
70	1	2								
71	1	2								
72		1								
73	1									
74		1								
75		1								
76	1	2								
77										
78										
79										
80										
81		1								
82										
83	1									
84	1									
85										
86										
87		1								
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
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113										
114										
115										
116										
117										
118										
119										
120										

July 2003, Trip 1

Tow 4	Experimental		No fish in cover		
7/24	Codend	Codend	Codend	Codend	Codend
L (cm)	Cod	HDK	Dab	GS	Pollack
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31				1	
32					
33					
34			2	1	
35					
36			1	1	
37			2		
38				1	
39				1	
40			1		
41			1		
42		1	1		
43				1	
44				1	
45					
46			1		
47					
48				2	
49		1			
50					
51		1			
52					
53					1
54					
55					
56					
57		1			
58					
59	1				
60	1				
61					
62					
63	1				1
64					
65					
66					
67					
68					
69	1				
70	2				
71					
72					
73					
74					
75					
76					
77					
78					
79	2				
80	1				
81	1				
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93	1				
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					
108					
109					
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111					
112					
113					
114					
115					
116					
117					
118					
119					
120					

July 2003, Trip 1

Tow 5	Experimental											
7/25	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	BB	BB
15												
16												
17						1						
18						2						
19						1						1
20					1	1						
21						1		1				
22						4						
23						3		2				
24					1	5						
25					1	8		1				
26					1	5		1				
27					3	11		1				
28					5	14		1				
29					5	10		7				
30					2	11	2	12		1		
31					4	9	1	11				1
32					9	11	3	9		1		
33					5	9	1	3			1	
34					11	15	2	11				
35					6	6	3	8				
36					6	4	4	3				
37					1	4	2	3				
38		2			1	4	2	4				
39					1	2	3	4				
40					4	3	4	5				
41		1			5	2	2	3				
42			2		5	2	2					
43		1	2		3	1		1				
44		1	1		1		2	1				
45		1	2		1		1					
46	1				1		1	2				
47		2			1	1						
48	1	1	1		1		2					
49		1						1				
50			1									
51			1		2							
52			1				1					
53			1									
54			1									
55		2	1									
56			1									
57												
58												
59		1	2	1								
60												
61	1											
62												
63		2		1								
64												
65	1											
66												
67												
68												
69												
70												
71												
72												
73												
74												
75												
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101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113		1										
114												
115												
116												
117												
118												
119												
120												

July 2003, Trip 1

Tow 6	Experimental													
7/25	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	BB	BB	Pollack	Pollack
15														
16						4								
17	1				1	6								
18						1								
19	1				1	4								
20	1				1	4								
21	1				1	3								
22	1				1	7								
23						3		1						
24	2				2	6		3		1				
25	5				5	10	1	1						
26	5				5	12		1						
27	5				5	12		3						
28	5				5	14		1				1		
29	4				4	12	1	2						
30	11				11	12		3						
31	6				6	8	2	7						
32	3				3	5	1	6						
33	7				7	5	3	5						
34	6				6	6		8						
35	3				3	3	2	1						
36	3				3	5		3						
37	1				1	1	2	4						
38						6	2	5						
39	8				8	1	2	5						
40							2	2						1
41	1				1	2		2					1	
42				1		1	3	1						
43	1			2	1	1	1	1					1	2
44	2				2	1							2	
45	2			2	2			1					4	1
46			1				1						3	2
47			2					1					4	2
48	1		1	2	1			1					4	2
49		1		3									3	
50				1									3	1
51			3	1			1						2	3
52			3	2									2	1
53		1	1	2									3	
54													1	
55				1									1	
56		3		1									2	
57														
58				1									1	
59														
60		1	1	1										
61			1											
62		2												
63		1												
64													1	
65		1												
66		3												
67		1												
68		2												
69														
70		2												
71		1												
72														
73		2												
74		2												
75		1												
76		1												
77														
78														
79														
80														
81														
82														
83														
84														
85														
86														
87														
88		1												
89														
90														
91		1												
92														
93														
94														
95														
96														
97		2												
98														
99														
100														
101														
102														
103														
104														
105														
106														
107														
108														
109														
110														
111														
112														
113														
114														
115														
116														
117														
118														
119														
120														

July 2003, Trip 1

Tow 7	Experimental											
7/25	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	BB	BB	Pollack	Pollack
15												
16						1						
17												
18												
19												
20						1						
21												
22						2						
23						2		1				
24								2				
25						4						
26						2		2				
27						1	1					
28					1	5		2				
29			1		1	4	1	1				
30			1	1		1		2				
31				1	1	5		4				
32		1						3				
33					1	4		6				
34					2	2		5		1		
35		1				2		3	1			
36						3	2	5				
37			2		3		1	3				
38			2	1	1		1	1				
39				4		1	1	2			1	
40			1	3	1		3	2			1	
41			1	6	1							
42			2	2	1	1	3					
43			3	1	1		4	2				
44			3	2			5					
45			6	3			1					
46			1	1				2				
47				2			1	1				
48			6	5	2		1					
49			1	1								
50			3	5			1					
51			4									
52			1	4								
53	1		2									
54			2	1								
55			1	1								
56			1									
57	1											
58				2								
59			2									
60			1	1								
61				1								
62	1	2		1								
63	1		1									
64												
65												
66		1		1								
67	1											
68	1											
69												
70	1	1										
71		1										
72		1										
73	1											
74												
75	1											1
76		3										
77												
78	1	1										
79	1											
80		1										
81	1	1										
82		4										
83	1	2										
84		5										
85		1										
86		1										
87		1										
88												
89	1	2										
90		2										
91		1										
92		3										
93		1										
94		1										
95	1											
96		4										
97												
98		1										
99		1										
100	1	1										
101		2										
102		1										
103		1										
104		1										
105												
106		3										
107												
108												
109												
110	1	3										
111		2										
112		1										
113												
114												
115												
116												
117		1										
118		1										
119												
120												

plus 1 cod @ 121 cm, and 1 cod @ 124 cm in the cover)

July 2003, Trip 1

Tow 8	Experimental											
7/26	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	BB	BB
15												
16						2						
17												
18						1						
19						4						
20						1						
21						1						
22					1	1						
23					1	1						
24						3						1
25					1	6						
26					1	6						
27			1			8		1				
28					1	12						
29						5	1	2				
30					2	10		7				
31					1	5	1	2	2			
32				2	3	4		3				
33			1	1	2	4		7		2		1
34					1	3		2				
35			1	2	5	4	2	4				
36				3	4	1	1	1				
37				8		3		3				
38			1	5	1		2	2				
39			1	5	4			2				
40			4	12			1	3				
41			2	10		2		2				
42			2	13			2					
43			2	7		1						
44			4	8			3					
45			3	8	2							
46		1	3	4	1	1						
47				10								
48			4	4								
49				4								
50		1	1	6								
51			5	3								
52	1	1		4								
53	1	2		2								
54		1	2									
55	3											
56	1	1		1								
57	1		1									
58				2								
59	1	1		1								
60	2											
61	1	1		2								
62	1		1									
63				1								
64		1										
65	2	2										
66	3	2		1								
67												
68	1	1										
69		2		1								
70	1	1										
71		1										
72		2										
73		2										
74		3										
75		1										
76		1										
77												
78		1										
79		2										
80	1	2										
81		3										
82	1	2										
83		2										
84		2										
85	2	1										
86	1											
87		3										
88												
89		2										
90	1	2										
91	1	2										
92												
93	1	4										
94		1										
95	1	1										
96	1											
97		2										
98		2										
99	1											
100												
101		1										
102												
103		1										
104												
105		1										
106												
107		1										
108												
109		2										
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												
120												

July 2003, Trip 1

Tow 9 Experimental

7/26 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
15												
16												
17						2						
18						1						
19						2						
20						4		1				
21					1	4						
22						3						
23						5		1				
24						2						
25					1	5						
26						3		2				
27					3	4		3				
28					3	11		1				
29					2	10		1				
30					4	8	1	5				
31					2	9	1	4				
32					2	5		8		1		
33					2	8		7		1		
34				1	3	14		8				
35				1	3	7	1	7				
36					3	4		7				
37			1	2	1	3		6				
38				6		6	3	6	1			
39				4		3	2	1				
40			1	6	1	2		4			1	
41			1	2		2		4			1	
42			2	4								
43			1	5	1							
44			1	3			2					
45		1		7		2						
46			1	4								
47			1	2								
48			2	1				1				
49			1	1								
50		1	2	1								
51		1	2	3								
52		3	2	1								
53	1		1	1								
54	1	1										
55	1		2	1								
56			1	1								
57		2		1								
58		2		1								
59		2										
60		1		1								
61		2										
62	1	1										
63	2	2										
64	1	1										
65	1	3										
66	1	1										
67	1	2										
68		2										
69	1	2										
70	1	3										
71	3											
72	3	1										
73		4										
74												
75		3										
76	1	1										
77		2										
78		2										
79		2										
80												
81		3										
82	1	3										
83		2										
84	1	3										
85	1	2										
86		2										
87		1										
88	1	4										
89	1	4										
90		5										
91		6										
92		6										
93		1										
94		2										
95												
96		3										
97		3										
98		1										
99		2										
100		4										
101		2										
102		2										
103												
104		2										
105												
106												
107												
108												
109		2										
110												
111		1										
112												
113		2										
114												
115												
116												
117												
118												
119												
120		1										

July 2003, Trip 1

Tow 10 Experimental

7/26 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
15										
16										
17										
18										
19						1				
20						2				
21						1				
22						1				
23						1				1
24						1		1		
25						2				
26					4	2				1
27					3					
28					4	1	2	1		
29					5	3				1
30					7	6	2			4
31					2	2		1		4
32					9	6	5	3		3
33					8	1	5	4		4
34					12	3	1	1		2
35					9	4	2	2		
36					3	2	2	2		
37					1	1		1		
38					3	3	4	1		
39					3	1		1		
40					1		1			
41					1					
42							1	1		
43				1		1	2			
44					1		2			
45					3		1			
46					2		1			
47					1		1			
48			1		3					
49			1							
50					1					
51					1					
52										
53										
54										
55										
56	1					1				
57	1									
58										
59										
60										
61										
62	1									
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101		1								
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										

July 2003, Trip 1

Tow 11 Experimental

7/28 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26					1			
27					1			
28					2			
29					2			
30							1	
31					1		2	
32					1			
33					1			
34					1			
35					5		1	
36					2		1	
37								
38								
39					1			
40								
41			2				1	
42							3	
43			1				1	
44								
45								
46								
47								
48			1					
49			2				1	
50			1		1			
51								
52			1					
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63	1							
64								
65		1						
66								
67								
68								
69								
70								
71								
72								
73	1		1					
74	1							
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								

July 2003, Trip 1

Tow 12 Experimental

7/28 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB
15											
16											
17											
18											
19											
20											
21											
22											
23					1						
24											
25											
26											
27											
28					2						
29					1						
30											
31					1				1		
32					1		2				
33							1				
34							1				
35							1				
36					2						1
37											
38					1		3				
39			2				2				
40			2		1		2				
41							1				
42			1				1				
43			5				1				
44			3				2				
45			3				1				
46			1								
47			1								
48	1										
49	1										
50											
51											
52			1								
53			1								
54			1								
55	1										
56	1		1								
57											
58											
59	2										
60											
61	1										
62											
63											
64											
65	1										
66			1								
67											
68											
69	2										
70	1										
71											
72											
73	1										
74	1										
75	1										
76											
77											
78											
79											
80											
81											
82	1										
83											
84											
85											
86											
87	2										
88	1										
89											
90	1										
91											
92											
93											
94	2										
95											
96											
97											
98											
99											
100	1										
101	1										
102											
103											
104											
105											
106											
107											
108											
109											
110											
111											
112											
113											
114											
115											
116	1										
117											
118											
119											
120											

July 2003, Trip 1

Tow 13 Experimental

7/28 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
15										
16						3				
17										
18										
19						1				
20					1	2				
21										
22								1		
23					1	3				
24						2				
25						4		1		
26						3				
27					2	3				
28						4	1	3		
29					1	3		2		
30				1		1		8		
31					1	3	1	6		
32					2	1	1	9		1
33					4	2		6	1	1
34				1	1	3	1	4		
35				1	3		1	1		
36						1	1	3		
37		1	1		2	1	1	1		
38						1				
39				1			1	3		
40			1		1	2	1	4		
41								2		
42				3				2		
43				1	1					
44			1	2						
45				5						
46				5	1					
47			2	4						
48			1	2						
49		1	2	3	1		1			
50			1		1		1			
51			1							
52			1	3						
53			1	2						
54			3	3						
55		1		1						
56				1						
57				1						
58		1								
59			1							
60	1	1								
61	1		1							
62		1								
63	1									
64		2								
65		1	1							
66		1								
67										
68		1								
69										
70										
71		1								
72	2									
73		1								
74	1	1								
75										
76	1	1								
77		1								
78										
79										
80		1								
81										
82										
83										
84										
85		1								
86										
87										
88		1								
89		1								
90										
91										
92										
93										
94										
95		1								
96										
97		1								
98										
99										
100										
101										
102										
103										
104										
105		1								
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										

July 2003, Trip 1

Tow 14 Experimental

7/29 L (cm)	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend BB	Cover BB
15						
16						
17						
18						
19		3				
20						1
21		2				
22		2				1
23		1				1
24		2				
25		3				
26						1
27		3				
28		3		2		
29	2	1				
30	1	1	1	2		
31		2		5		
32		2		2		
33		3		1		
34		5		2		
35		1		2		
36		1		4		
37	1	1		1		
38		2		2		
39			2			
40			1	3		
41			1			
42						
43		1		2		
44		1				
45						
46						
47				1		
48		1				
49						
50						
51						
52				1		
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						
73						
74						
75						
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
86						
87						
88						
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120						

July 2003, Trip 1

Tow 15 Experimental

7/29	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT	BB	BB
15												
16												
17						1						
18						1						
19						2						
20												
21												
22												
23					2							
24						1						
25						2						
26						4						
27						2	1					
28					2	4						
29				1	1	3		1				
30					1	8	2					2
31					7	8		5				
32					2	7	5	4		1		
33					1	9	1	2				
34					1	6	1					
35					3	8	3	4				
36					4	5	1	2		1		1
37				1	2	5	2	2				
38			1		1	2	2	3				
39					2		1	4				
40				2		1	2	3				
41			1	3		1	1	3				
42						1	2	1				
43			1	2		2	3	1				
44				2	1	2	1	1				
45			1	4	1							
46	1		2	1			2					
47		1	1	2			1					
48			1				1					
49				2				2				
50		2	1	2								
51		1	1	1								
52	1	1	1	1								
53	1	2	2	1								
54	1	2	1									
55				1								
56	1	1	1									
57		2										
58				2								
59		1										
60			1									
61	2	2										
62		5										
63	1	2										
64	1	1										
65		1										
66		1		1								
67												
68		1		1								
69												
70		1										
71		1		1								
72		1										
73		1										
74		1										
75												
76												
77		1										
78												
79												
80		1										
81												
82												
83												
84		1										
85		1										
86												
87	1	1										
88												
89												
90		3										
91		2										
92		1										
93		3										
94												
95												
96												
97												
98		3										
99		1										
100		1										
101		1										
102												
103												
104		1										
105												
106												
107												
108		1										
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												
120												

July 2003, Trip 1

Tow 16 Experimental

7/29	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
15										
16										
17										
18										
19										
20								1		
21					1					
22										
23										
24						1				
25						1	1	2		
26						2		4		
27					2	4	1	1		
28					3	4	1	3		
29					3	2	2	5		
30					2	6		3		
31					4	3		5		
32					5	3	7	4	1	
33					2		3	6		1
34					1	4	6	6		
35					2	4	2	1		
36					1	1		3		
37					2	1	2	1		
38					4		3	1		
39					1	2	2	4		
40					1	2	5	1		
41					2		3	2		
42					1	1	1			
43		1			1		2			
44				1			1			
45				1						
46				3	1		1	2		
47			1							
48				1			1			
49							1			
50			1	1						
51	1	1		1						
52			1	1						
53				1						
54				1						
55										
56										
57			1							
58										
59										
60	2									
61	1									
62	2									
63	1	1								
64	1									
65	1	3								
66		1								
67										
68	2	3								
69		1								
70										
71										
72										
73										
74										
75										
76										
77		2								
78										
79		1								
80										
81										
82										
83										
84										
85										
86										
87		1								
88										
89										
90										
91										
92										
93										
94										
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105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										

July 2003, Trip 1

Tow 17 Experimental

7/30	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
15										
16										
17										
18										
19										
20										
21										
22										
23										
24						1				
25										
26					1					
27										
28					1	3				
29								1		
30					1	1		3		
31					1			3		
32							3	2		
33					2		4			1
34								3		
35							3	3		
36					1		2			
37					1		1			
38							1	3		
39						1	1	3		
40						1				
41						1				
42			2	2			2			
43					1		1			
44			1		1			1		
45				3	1	1	1			
46				1			1			
47			1	1						
48			1	1	1					
49			1	1	1			1		
50										
51										
52			2	1						
53		1								
54				1						
55			2							
56		1	2	1						
57			1	1						
58										
59	1	2								
60		1		1						
61	1									
62										
63										
64	1									
65										
66		1								
67										
68										
69		1								
70		1								
71										
72	1	2								
73										
74		1								
75										
76		1								
77										
78		2								
79		1								
80										
81	1	1								
82		1								
83										
84	1									
85		3								
86										
87		2								
88	1	1								
89		1								
90										
91		3								
92		2								
93										
94	1	3								
95										
96		1								
97										
98										
99										
100										
101		1								
102										
103										
104										
105										
106										
107										
108										
109										
110		1								
111										
112		1								
113										
114										
115										
116										
117										
118		1								
119		1								
120										

July 2003, Trip 1

Tow 18 Experimental

7/30	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover	Codend	Cover
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	YT	YT
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26						1				
27						1				
28						1	1			
29										
30					1	2		1		
31					1	1		2		
32						2		2		
33					2	3	2	3		1
34					3	1	1	4		
35					1	2		2		
36								2		
37					1	2	2	1		
38					3		2	2		
39					1		1	2		
40			1		1			1		
41			2		1		1	1		
42							2			
43				1			1			
44			2			1		1		
45										
46										
47					1					
48			1							
49			2					1		
50	1									
51										
52			1	1						
53										
54										
55		1	1							
56										
57			1							
58	1									
59			1							
60	1									
61		1								
62			1							
63			1							
64										
65										
66	2									
67	1									
68										
69										
70		1								
71										
72		1								
73		1								
74	1									
75		2								
76		1								
77		2								
78										
79		1								
80		1								
81										
82										
83										
84										
85										
86		1								
87										
88										
89										
90										
91		2								
92		2								
93		4								
94										
95		1								
96										
97		2								
98		1								
99										
100										
101										
102										
103										
104		1								
105	1									
106										
107										
108										
109										
110		1								
111										
112										
113										
114										
115		1								
116										
117										
118		1								
119										
120										

July 2003, Trip 1

Tow 19 Experimental

7/31 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT
15										
16										
17										
18										
19										
20										
21										
22										
23					1					
24										
25										
26										
27					1					
28										
29										
30					1		1			
31										
32					2					
33						1		2		
34					5	1	1			
35						2	1	1		
36					1	4		2		
37						3	2	2		
38					2	3		3	1	
39								1		
40						1	1	1		
41								1		
42					2					
43						1	3	1		
44				1						
45		1								
46										
47				2			1			
48				1	1		1			
49										
50				1						
51										
52		1	1	1						
53		2								
54		1		1						
55				1						
56										
57	1									
58							1			
59		1								
60										
61		1								
62		1								
63	1									
64										
65		3								
66		1								
67		1								
68										
69	1	2								
70										
71										
72		2								
73										
74	1	1								
75										
76										
77		2								
78										
79		2								
80										
81	1									
82										
83										
84		2								
85		2								
86		2								
87										
88		3								
89	1	1								
90		1								
91		1								
92		5								
93		1								
94		1								
95										
96	1	1								
97		2								
98		2								
99										
100		1								
101		1								
102										
103		1								
104										
105		1								
106		1								
107										
108										
109		1								
110										
111										
112										
113		1								
114										
115										
116										
117										
118										
119										
120										

July 2003, Trip 1

Tow 20 Experimental

7/31 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend BB	Cover BB
15										
16										
17										
18						1				
19										
20										
21						1				
22										
23						2				
24										
25						1				
26						1		1		
27						1		2		1
28						4		2		
29					1	2				
30					1	1		5		
31						1		6		
32						3	1	6		
33					1	4	2	9		
34						2	1	7		
35						2	1	2		
36					1	2	2	3		
37						4	1	5		
38					1			5		
39						1		2		
40				1			1	3		
41			1		2		2	2		
42								3		
43				1	1			2		
44				1			1	1		
45				1				1		
46				1						
47			1				1	1		
48								1		
49			1							
50			2	1						
51										
52				1						
53	1			1						
54										
55										
56										
57				1						
58			1							
59										
60										
61		1								
62										
63	1									
64										
65				1						
66										
67										
68										
69										
70										
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72										
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74										
75										
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105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										

September 2003, Trip 2

Tow 21 Experimental

9/15 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB	Codend WHK	Cover WHK
14														
15						1								
16														
17						1								
18						5								
19						5								
20						14								
21						7								
22					1	11		1						
23						9								
24						7								
25				1		4		1						
26						14		4						
27						10	1	5						
28					1	10		8						
29						10		13						
30						5		16		4				
31					1	5	1	26		1				
32				1	1	2		28		9		1		
33						3	1	17		2		1		
34					1	3	1	15			1			
35						1	3	6				1		
36								7		1				
37						1		9			1			
38						1		6		1				
39				1		1	2	5		1		1		
40		1					1	2						
41		1		1			1							
42														
43					1	1	1							1
44								1						
45				1			1							
46			1											1
47														1
48		1	1	1										1
49														1
50														1
51	1	2						1						
52														
53														1
54		5	1											1
55	2	3												
56		4												
57	5	6												
58	2	7												
59	1	9												
60	2	2												
61		4												
62	2	2												
63	2	3												
64	1													
65		3												
66		1												
67		4												
68	1	3												
69														
70		1												
71		2												
72		1												
73														
74		1												
75														
76		1												
77														
78		1												
79														
80														
81														
82														
83														
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101														
102														
103														
104														
105														
106														
107														

September 2003, Trip 2

Tow 22 Experimental

9/15 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB	Codend WHK	Cover WHK
14														
15														
16														
17														
18														
19														
20														
21														
22						1								
23														
24														
25														
26														
27						1								
28						2								
29														
30								1						
31						1		1		1				
32								3						
33				1				5						
34						1		1						
35								3						
36				1				3						
37				1										
38								1			1			
39								2						
40								3						
41							2							
42			1								1			
43			1				1							
44				1				1						
45				1										
46														
47														
48														1
49														
50														
51														
52				1										
53														
54				1										
55	1													2
56														
57														
58		1												
59	1													
60														
61														
62														
63													1	1
64														
65														
66														
67	1													
68	2													
69		1												
70														
71														
72		1												
73														
74														
75														
76														
77														
78														
79														
80														
81														
82														
83														
84														1
85														
86														
87		1												
88														
89														
90														
91														
92														
93														
94														
95														
96														
97														
98														
99														
100														
101														
102														
103														
104														
105														
106														
107														

September 2003, Trip 2

Tow 23 9/15 L (cm)	Experimental Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend WHK	Cover WHK
14										
15										
16										
17										
18										
19										
20						1				
21						1				
22										
23						1				
24										
25										
26										
27								1		
28								1		
29						2				
30										
31										
32										
33								1		
34										
35								2		
36				1				2		
37				1				3		
38							1	1		
39				2				2		
40							3	3		
41										
42										
43								2		
44				1						
45				1				1		
46				1						
47				2			1			
48				1						
49				3						
50										
51				1						
52		1		1						
53				1						
54				3						
55										
56										1
57										1
58	1		1	1						1
59										
60		1								
61			2							
62				1						
63										
64		1								
65				1						
66		1								
67										
68		2								
69		1								
70										
71										
72		2								1
73	1									
74										1
75		1								1
76		5								
77		2								
78										
79	1									
80										
81		1								
82		1								1
83		2								
84										
85		1								
86		1								
87		1								
88										
89										
90										
91		1								
92										
93		1								
94										
95										
96										
97	1									
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

September 2003, Trip 2

Tow 24 9/15 L (cm)	Experimental Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend PLK	Cover PLK	Codend WHK	Cover WHK
14												
15												
16												
17												
18						1						
19												
20												
21												
22												
23								1				
24						1		3				
25						2		1				
26						3		2				
27						2		3				
28						1		4				
29						9		8				
30					1	2		7				
31						3		12				
32				1	1	1		20				
33						5	1	17				
34						2	2	20				
35		1				1	1	14				
36							3	13				
37						1		11				
38						1		2				
39								4		2		
40				1				6		2		
41							2	4		3		
42							1	6	1	4		
43				1				2	2	1		
44				1			3	1		2		
45							1			1		
46										2		
47										1		
48										1		
49				1								
50				1	1							
51										1		
52				2					1			
53										1		
54				1								
55												
56	1											
57												
58									1			
59												
60	1	1										2
61												
62			1								1	
63												1
64												
65												
66		1										
67												
68												
69												1
70											1	
71												
72												
73		1										
74												
75												
76												
77												
78		1										
79												
80												
81												2
82												
83												
84												
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

September 2003, Trip 2

Tow 25 9/16 L (cm)	Experimental Codend Cod	Cover Dab	Codend GS	Cover GS	Codend BB	Cover BB
14						
15						
16						
17						
18		1				
19		1				
20		1				
21	1					
22						
23						
24		1				
25						
26		3		1		
27		2				
28	1					1
29		2		1		
30				1	1	
31				1		
32						
33	2					
34				1		
35			1			
36						
37			1			
38				1		
39				1		
40			1			
41						
42						
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September 2003, Trip 2

Tow 26 9/16 L (cm)	Experimental Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB	Codend PLK	Cover PLK	Codend WHK	Cover WHK
14						1										
15																
16																
17						5										
18						8										
19						3										
20						9										
21						7										
22						9		2								
23						6		2								
24					1	3		3								
25					1	14		11								
26					1	13		8								
27						16		14		1						
28					1	16		19								
29					1	21		28					1			
30					1	12		24								
31						8		34				1				
32						8	2	38								
33					1	2	3	30		1						
34						4		27								
35						1	1	20								
36						2		14								
37					1			14								
38						1	1	6								
39						2		6				1				
40						1		5								
41				1	1			3								
42					1			1								
43																
44								1								
45		1														
46						1										
47				2		1										
48							1									
49																
50	1															
51		1		1												
52			1													
53																1
54		2														
55		1														
56																
57																
58																
59																
60																
61		1														
62		1														
63																
64																
65	1															
66																1
67																
68																
69																
70																
71																
72																
73	1															
74																
75																
76																
77																1
78																
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104																
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107																

September 2003, Trip 2
Tow 27 Experimental

9/16 L (cm)	Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend WHK	Cover WHK
14												
15												
16												
17						3						
18						2						
19						1						
20						10						
21						11						
22						6						
23					1	4						
24						5		3				
25					1	7		3				
26					2	14		6				
27					1	10		10				
28						14		6		1		
29						12	2	14				
30						4	1	10		1		
31					1	9	1	18		1		
32					1	4		25	1	1		
33					1	1	3	30		2		
34				1		1	3	18		1		
35							2	17				
36					1	3	3	15		2		
37						1	3	4				
38				1			5	5				
39				1			3	9				
40						1	4	9				
41		1		1			1	1				
42							2	5				
43				1	1			1				
44				1				3				
45				1								
46				1								
47								1				
48							1	1				
49												
50		1										1
51		2										
52		2										1
53		1	1									
54	1	4										1
55	2	2										1
56	2	3	1	1								2
57	1	2										1
58	2	5									2	
59		5										
60	1	2										1
61		2										1
62	2	2										1
63	1	2										
64	1	3										1
65	1	4									1	1
66	3	10										1
67	1											
68	1	6										
69		3									1	
70		2									1	
71		3										
72		3										
73	1	1										
74		2										
75		2										
76		4										1
77												
78												
79		2										1
80												
81												
82		1										
83												
84		1										
85												
86												
87												
88												
89												
90		1										
91												
92												
93												
94												
95												
96												
97												
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101												
102												
103												
104												
105												
106												
107												

September 2003, Trip 2
Tow 28 Experimental

9/16 L (cm)	Codend Cod	Cover Cod	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
14										
15										
16				1						
17				1						
18				2						
19				3						
20				5						
21			1	6						
22				5						
23			2	5						
24						1				
25				4		2				
26				3						
27			2	7		3				
28			1	5		3				
29				6	2	4				
30				2		10				1
31			1	3		9				
32			1	3	2	4		1		
33				2	1	10				
34			1			6				
35						5				
36					3	2				
37					1	5				
38					2	4				1
39					1	1				
40					2					1
41										
42					2					
43					2					
44				1		1				
45					1					
46										
47										
48										
49										
50										
51										
52										
53										
54		1								
55										
56										
57	1									
58	1									
59	1	2								
60	2									
61	3									
62	2	1								
63										
64	3	3								
65	1	2								
66		1								
67	1	1								
68	1	4								
69	1	1								
70	1									
71		2								
72		2								
73										
74		1								
75	2									
76		1								
77										
78										
79										
80		1								
81		1								
82										
83										
84										
85		1								
86		1								
87										
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92										
93										
94										
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101										
102										
103										
104										
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106										
107										

September 2003, Trip 2

Tow 29 9/17 L (cm)	Experimental Codend Dab	Cover Dab	Codend GS	Cover GS	Codend YT	Cover YT	Codend BB	Cover BB
14								
15		1						
16		3						
17		3						
18		4						1
19		6						
20		9						
21		3						
22	1	3						
23		4						
24	1	3						
25	2	6						
26		9						
27		4						
28		8		1		1		
29		4						
30	1	3				1		
31	2	5				1		
32	4	1		2		2		
33	2	5		3		1		
34				1		1		
35	1			2		1		
36	1			1		1		
37		2						
38	1							
39								
40								
41			1					1
42								
43								
44								
45								
46								
47								
48								
49								
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52								
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102								
103								
104								
105								
106								
107								

September 2003, Trip 2

Tow 30 9/17 L (cm)	Experimental Codend Cod	Cover Cod	Codend HDK	Cover HDK	Codend Dab	Cover Dab	Codend GS	Cover GS	Codend WHK	Cover WHK
14										
15										
16										
17					1					
18										
19					1					
20										
21					1					
22					1					
23										
24										
25										
26					1		1			
27					1					
28					5	1	2	1		
29					2	1		1		
30					2	1	2			
31					2		2	2		
32					2		6	1		
33					1		7	3		
34					1		4	2		
35					1	1	7	1		
36							3	2		
37						1	4	2		
38							1	1		
39	1				1		4	2		
40							3	4		
41							4			
42				1		1	2			
43							6	1		
44	1						4	2		
45							2			
46								1		
47								1		
48										
49			1				1			
50										
51				1						
52										
53										
54		1								1
55									1	
56	1	2		2						1
57	1									
58										
59		1							1	
60	1	1								1
61		2								
62	1	3								
63										
64		1								
65	1	2								
66										
67	2	2							1	
68		1								
69		1								
70	1									
71	1									
72		1								
73		1								
74		1								
75										
76		1								
77		1								1
78										
79										
80										
81										
82		2								
83	1									
84		1								1
85										
86		1								
87										
88										
89										
90										
91										
92										
93		1								
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

September 2003, Trip 2

Tow 31 9/17 L (cm)	Experimental Upper Cod	Lower Cod	Upper HDK	Lower HDK	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper WHK	Lower WHK
14										
15										
16										
17										
18										
19										
20										
21					1	1				
22										
23						1				
24							1			
25					1	1				
26					1	2		1		
27					1	2				
28						1				
29					1	3				
30					3	1	2			
31					1	1	2	3		
32					1	1	3	3		
33							3	5		
34						2	4	5		
35							1	3		
36							2	3		
37							3	4		
38							3	5		
39					1		3	3		
40						3	7	5		
41							4	8		
42							3	2		
43							4	8		
44								6		
45				1			1	1		
46				2		1	1			
47		1			1		2	2		
48							2			
49										
50				1						
51				1						
52										
53										
54	1	1								
55	1	4								
56		5								
57		4								
58		3								
59		4								
60	1	4								
61		1								
62		5		1						1
63		7								
64	1	6								
65		3								
66	1	1								2
67		2								1
68		5								
69	2	4								
70		1								1
71		1								
72										
73		3								
74	1									
75		1								
76		1							1	
77		1								
78		1								1
79										
80		3								
81		1								
82										
83										
84										
85										
86		1								
87										
88		2								
89										
90										
91										
92										
93										
94										
95		1								
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

September 2003, Trip 2

Tow 32 9/22 L (cm)	Experimental Upper Dab	Lower Dab	Upper GS	Lower GS	Upper BB	Lower BB
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30					1	
31						
32						
33		1				
34						
35	1					
36				1		
37						
38						
39						
40		1				
41	1					
42	1			1		
43						
44						
45		1				
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
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99						
100						
101						
102						
103						
104						
105						
106						
107						

September 2003, Trip 2

Tow 33 9/22 L (cm)	Experimental Upper Cod	Lower Cod	Upper HDK	Lower HDK	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper WHK	Lower WHK
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26								1		
27										
28										
29							1	1		
30										
31							2			
32							1			
33										
34							2	2		
35							1			
36					1		1	1		
37							1	1		
38										
39								1		
40							1			
41							2			
42							3	1		
43							1			
44		1					3			
45	1						2	1		
46		1								
47		1								
48										
49				1						
50										
51	2	1						1		
52										
53										
54										
55										
56									1	
57		1								
58										1
59										
60										
61	2	1								
62	2	1								
63	1	1								
64		1								
65	2	1								
66	1	1								
67		2								
68		3								1
69		1								
70		4								
71	2	8								
72		4								
73	1	1								
74		2								1
75		4								
76		2								
77	1	1								
78		2								
79		3								1
80	1	2								
81	1	1								
82		3								
83		2								
84										
85		1							1	
86										
87	1									
88		1								1
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

September 2003, Trip 2

Tow 34 9/22 L (cm)	Experimental Upper Cod	Lower Cod	Upper HDK	Lower HDK	Upper GS	Lower GS	Upper WHK	Lower WHK
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32					1			
33						1		
34					1			
35						1		
36						1		
37								
38						2		
39					1			
40					1	1		
41						1		
42								
43						1		
44						2		
45								
46					1			
47						1		
48								
49			1					
50								
51								
52								
53								
54								
55			1					
56								
57								
58								
59								
60	1							
61	1							
62								
63		1						
64								
65	1							
66								
67								
68		1						1
69	1	1						
70		2						
71								1
72								1
73	1							
74								
75								
76								
77								
78								
79		1						
80								1
81								1
82								
83								1
84								1
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98		1						
99								
100								
101								
102								
103								
104								
105								
106								
107								

September 2003, Trip 2

Tow 35 9/22 L (cm)	Experimental Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper PLK	Lower PLK	Upper WHK	Lower WHK
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34						1				
35						1				
36										
37				1		3				
38					1	5				
39					1	2				1
40					1	6				
41					1	2				
42					4	4			1	
43					2	3				
44						3				
45		1								
46										
47		1				2				
48						1				
49										
50					1					
51										
52										
53										
54										
55									1	
56										
57									1	
58										
59		1					1		1	
60									1	
61										
62										
63	1									2
64		1							1	
65	1									
66									2	
67										
68		2								
69									1	
70		1								2
71									1	2
72										
73										1
74										1
75									2	
76									1	2
77										
78										2
79										1
80									1	2
81		1								2
82		2							1	1
83									1	
84	1									7
85									1	3
86										1
87										5
88		1							2	3
89		2								
90		1								
91	1									1
92		1								1
93										
94										
95										
96		1								
97										
98										
99										
100										
101										
102										
103		1								1
104										
105										
106										
107										

September 2003, Trip 2

Tow 36 9/23 L (cm)	Experimental Upper Cod	Lower Cod	Upper HDK	Lower HDK	Upper GS	Lower GS	Upper BB	Lower BB	Upper PLK	Lower PLK	Upper WHK	Lower WHK
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31					1							
32								1				
33				1								
34					1	1						
35					4	1						
36					4	2						
37					6	8						
38					3	4						
39					5	2						
40					8	2						
41					4	5						
42				1	2	4						
43					2	4						
44					3	5						
45	1		1		2	6						
46		3			1							
47			1	1	2	1					1	
48	1			1								
49		1										
50	1	1		1								
51			1									
52												
53	1	1										
54	1	1										
55	1	1								1	1	
56											1	1
57												
58		1										2
59		1									1	
60										1		
61	3	1							1			1
62										2		1
63												
64	1									1		1
65	2										1	2
66		2									2	
67	2	2								1		
68	1											1
69	1											
70	1	6										1
71	2	3										
72												
73		3										2
74		2										
75	2	6										1
76	3	6										2
77	3	2									2	1
78		4										2
79	2	3									1	
80		3										6
81		4										1
82		5										3
83	2	8										2
84		3								1	1	2
85		2										2
86		3										1
87		1										
88		3										
89		3										
90		5										2
91												
92		1										
93												
94												1
95		3										
96												
97												
98		1										
99												
100												
101		1										
102												
103												
104												
105		1										
106												
107		1										

September 2003, Trip 2

Tow 37 Experimental

9/23 L (cm)	Upper Cod	Lower Cod	Upper HDK	Lower HDK	Upper GS	Lower GS	Upper BB	Lower BB	Upper PLK	Lower PLK	Upper WHK	Lower WHK
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29						1	1					
30							1	1				
31					1		1					
32								1				
33							2	1				
34					1	3	2	1				
35					2	3	1					
36					2	3	1				1	1
37					3	4	1	1			1	4
38					7	4	1					2
39					10	2						3
40					6	6	2				1	
41					8	4						
42					7	3	1					
43		1			7	6						
44					4	4						
45					1	1						
46				1	1	1						
47	2		1	2	1							
48	1	3	2	2	1							
49		1										
50	1		2									
51	1			4					2			
52	1			3								
53	1			2							1	
54	1		1	1					1		2	
55				2						2		
56	1									4		
57				1						2	1	
58	2	1	1	2					1	2	1	
59		1							1	1		
60		1								3	1	
61	2	1								2		
62	1	2									1	
63	1	1								3		
64	1	2								1		2
65	1	4										
66	1	5									1	
67		1								2		1
68		2										3
69	3	6								4	2	
70	3	3										1
71	1	4										
72	2	3								2		
73	3	5										2
74	2	3								1	1	
75	1	8									1	1
76		4										
77	2	6										1
78	2	5									2	
79	1	7									3	1
80	1	2										2
81		2									1	
82	1	8										3
83		5									2	5
84		4										3
85		1										
86	4	3										3
87		2										
88												
89	1	3										
90	1	1										
91		1										
92												
93		2										
94												
95												
96		1										
97												
98												
99		1										
100												
101												
102												
103		1										
104												
105		1										
106		1										
107												

September 2003, Trip 2

Tow 38 Experimental

9/23 L (cm)	Upper Cod	Lower Cod	Upper HDK	Lower HDK	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper BB	Lower BB	Upper PLK	Lower PLK	Upper WHK	Lower WHK
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30										1				
31														
32										2				
33														
34														
35							1	1		1				
36							1	1						
37							1	1						
38		1								1				2
39								2					1	
40		1					3	3						
41							3	2						
42							5	3		1				1
43							6	1	1					
44	1						2	5						
45							2	3					1	
46							4	1					1	
47		2	1	1	1		1	1						
48				1				1					1	
49							1							
50	1		1	1			1	1						
51	1			1										
52	2													1
53		1												
54														
55			1											
56		1												1
57				1									1	1
58				2									1	
59														
60	1	1												
61													1	1
62	2													1
63														
64		1												1
65	1	1												
66	2	1											1	
67	1	2											1	
68	1	3												1
69											1		1	
70													1	1
71	1	1												1
72														2
73	3	1												1
74	1	1											1	
75	1	1											3	
76		4											1	2
77	3	2											3	1
78	1	1											1	
79	2	1											2	3
80		3												
81	3	1											1	1
82	2	2											3	1
83	3	3												1
84		5												1
85	2	2											2	1
86	1	1											1	1
87	2	5												
88	1	2											1	
89	2	2												
90		2												1
91		2												
92		1												
93	1	3											1	1
94		2												
95		3												
96														
97	1	1												
98														
99														
100														
101														
102														
103														
104														
105														
106	1													
107														

September 2003, Trip 2

Tow 39 9/23 L (cm)	Experimental Upper Cod	Lower Cod	Upper GS	Lower GS	Upper PLK	Lower PLK	Upper WHK	Lower WHK
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36			1					
37							1	
38								
39			2					
40			1					
41			5	3				
42			2					
43			3					
44			6	1				
45		1	1					
46			2					
47								
48		1	1				1	
49								
50								
51							1	
52							2	
53			1		1			
54								
55								
56							2	
57						2	2	
58								
59							1	
60							2	
61		1						
62							2	
63								1
64		1					1	1
65							1	
66						2		1
67	1						1	1
68						1	2	
69	1						1	
70	1				1		3	
71	1							
72						1		
73								
74	1						2	
75		1				1		
76		1					2	
77							1	1
78		2					1	
79	1							3
80							1	
81							1	
82							1	
83	2						2	1
84							1	
85								1
86							1	
87								
88	1						1	
89								
90	1				1			
91								
92								
93								
94	1							
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

September 2003, Trip 2

Tow 40 9/24 L (cm)	Experimental Upper Cod	Lower Cod	Upper HDK	Lower HDK	Upper GS	Lower GS	Upper PLK	Lower PLK	Upper WHK	Lower WHK
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31					1					
32					1					
33										
34					1					
35					2					
36					1					
37					1	2				
38					5	1				
39	1				2					
40					3					
41					4	3				
42					3	1				
43					2	3				
44					7	4				
45					5					
46						2				
47										
48						2				
49					1					
50										
51										
52	1									
53								1		
54			1							
55		1								
56										
57									1	1
58								1	1	1
59									1	
60									2	1
61									2	1
62	1						4		4	1
63							1		2	1
64	1						1		1	1
65									3	
66									3	1
67									1	
68	1	1					1		5	1
69	1								4	
70	1								3	
71		1					1		3	2
72	3								4	2
73	2	2							1	2
74		1							3	1
75		1							3	2
76	1	3							3	1
77	2	1							3	
78									3	6
79	3								5	1
80	4								6	2
81	2								4	2
82		1							1	1
83	3								1	
84	3	1							1	3
85										1
86	1								1	3
87	2	2							2	1
88	2	1							1	
89										2
90	4									1
91		2								2
92	1									
93	4									
94	2	2								
95										
96										
97										
98										
99										
100									1	
101										
102										
103										
104										
105										
106										
107	1									

September 2003, Trip 2

Tow 41	Experimental											
9/24	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	HDK	HDK	GS	GS	BB	BB	PLK	PLK	WHK	WHK
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31							1					
32												
33												
34					1			1				
35												
36								1				
37						1						
38						1						
39						3						
40								1				
41					1	5						
42					1	3						
43						1						
44				1		2						
45			1			2						
46												
47						1						
48	1	1		1		1						
49	1		1									
50	2											
51		1										
52												
53				1							1	
54												
55												
56												
57												
58												
59				1								1
60												
61												
62												1
63		1									1	
64		1										
65										1	1	
66											1	
67	1	2								1		
68											1	
69	1	1									1	
70	1	1										
71	2	2								1		
72	1											1
73		4									1	
74		4										
75	1	1									2	2
76	1	1									2	2
77	1	3										
78		3				1					2	2
79	3	2										2
80	2	4									2	1
81	1	5										1
82	1	3										
83		3									1	1
84	1	3									2	2
85	2	2										3
86												2
87		3										1
88		5										1
89		1										
90												
91		3										
92		1										
93	1	1										
94		1										
95												
96												
97												
98												
99		2										
100												
101		1										
102		1										
103												
104												
105												
106												
107												

September 2003, Trip 2

Tow 42	Experimental											
9/24	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	BB	BB	WHK	WHK
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25										1		
26												
27										1		
28												
29												
30												
31							1	1		1		
32							1			1		
33							1	2	1	1		
34								2	1			
35							2	3		2		
36							2	1		3		
37							2	2				
38							4	6				
39							6	5				
40							5	5				
41							5	6				
42							2	4				
43				1			2	9				
44				1		1	3	1				
45				1			1	5				
46							1	1				
47				2			2					
48				1			1					
49				1								
50	1											
51				2								
52			2	4			1					
53		1					1					
54												
55												
56												
57			1									
58												
59			1									
60												
61			1									
62	1	1										
63	1											
64	1	3										
65		1										
66	2											1
67	1											
68		2										1
69		1										
70		2										
71	1	4										3
72	3	2										
73	1	4										
74	1	2										1
75		3										1
76	1	2										
77	2	5										1
78		3										
79		1										
80	1	1										2
81	4	2										2
82	2	3										
83		6										
84	1	3										
85	1	2										1
86	1	2										
87		1										
88	1	2										2
89	1	3										
90												
91	1	1										
92												
93		2										
94		2										
95												
96		1										
97		1										
98		2										
99		1										
100												
101												
102		1										
103												
104												
105												
106												
107												

September 2003, Trip 2

Tow 43	Experimental											
9/24	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	HDK	HDK	GS	GS	BB	BB	PLK	PLK	WHK	WHK
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29								1				
30												
31												
32						1						
33					3	1						
34								1				
35					2		1					
36					1	1						
37					1	4						
38					2	4						
39					3	5						
40					5	6						
41					3	3						
42					7	6						
43					6							
44				1	1	3						
45	1				4	9						
46					2	5						
47			2		4	2						
48	1		1		2	1						
49			1			1						
50					1							
51				1								
52			1			2						
53												
54												
55			1									
56												
57										1		
58											1	
59												
60											1	
61												
62	1											
63												
64											1	
65	2	1									1	
66	1											
67	5											
68		1										
69	1	1										
70	2	1										
71	1										1	
72	1	2										
73	2	1										
74	4	3									2	
75		6									1	
76	3	1										
77	1	3										
78	1	1										
79	2	4									2	
80	2	1										
81	3	1										
82		1										
83	2											
84	3	3										
85		6										
86	1	2										
87		1										
88		2									1	
89	2	1										
90		1										
91		1										
92		3										
93												
94		2									1	
95		1										
96												
97	2											
98												
99												
100	1											
101												
102												
103												
104												
105												
106												
107												

September 2003, Trip 2

Tow 44	Experimental											
9/25	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	HDK	HDK	Dab	Dab	GS	GS	PLK	PLK	WHK	WHK
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31							1					
32												
33					2	1						
34												
35												
36						1						
37					2			1				
38					5	1						1
39					1	2	1	1				
40			1		2	3	1	1			1	
41					1		1					1
42					5	2						
43				1	2		1	1				
44					4	4					1	
45				1	2						2	4
46			1		3	2		1			1	
47											1	
48			1		1							1
49			1	2	1	1						
50					2						1	1
51				1	1						1	
52					1						1	
53				2								1
54												
55			3	1								
56			1	1							2	3
57											1	1
58											1	1
59											1	2
60												
61									1		2	1
62											3	1
63												1
64											1	1
65												
66			2	1							1	
67											2	
68											1	
69												
70												1
71												
72												
73												
74												
75											1	2
76												
77											1	1
78												
79												
80												
81												
82											1	
83												
84												
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												1
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												

September 2003, Trip 2

Tow 45	Experimental									
9/25	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	HDK	HDK	Dab	Dab	GS	GS	PLK	PLK	WHK	WHK
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31					1					
32				1	1					
33					1					
34				1						
35				1						
36				1	1	1				1
37					2					
38					6				1	
39				2	6	1			1	
40				1	4					
41				1	1				1	
42				3	5					
43	2	3		2	8	1				
44					2				1	
45				3	3					1
46	1	2		2	1					
47	1	2		2	1					1
48		1		1	3					
49	3				1					1
50		2		2						
51	5	3		1	2					
52	4	1							1	
53	1	3		1	1					
54	3	2								
55	4	1								1
56										
57	4	4		1					1	1
58	1	1					1			
59	1									3
60	1									
61	1									
62		1								1
63	1	2							1	
64									3	2
65								1		1
66									1	1
67		1								
68										1
69										
70									2	
71										1
72										
73										1
74										
75									1	
76									1	
77									1	
78										
79										
80										
81										
82										
83										1
84										
85										
86										1
87										
88										
89									1	
90										
91										
92										
93										
94										1
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										

September 2003, Trip 2

Tow 46	Experimental							
9/25	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	HDK	HDK	Dab	Dab	GS	GS	WHK	WHK
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26			1					
27			1					
28					1			
29								
30								
31			1					
32			2	1	1			
33			1	1				
34			4		3	1		
35			3	2				
36			3		1	1		
37			2	4	1			
38			4	2		1		
39			2	1				
40			9	5	2			
41			2	5	1			1
42			3	10		1		
43			5	9	1		1	
44			6	5	1			
45			6	2	1			1
46			4	7	1			
47		1	6	2				1
48	1		3				2	2
49			5	1				
50			4	5				
51		1	2	2	1			
52			3	1			2	
53		1						
54			1				1	2
55			3				1	1
56			1				2	3
57			1				2	1
58	1		1				3	1
59								4
60							2	
61								1
62							3	
63							2	1
64							1	1
65							1	1
66	1							4
67							1	2
68							2	1
69							1	
70							2	1
71							3	2
72								1
73							1	
74								
75								2
76							1	
77								1
78								1
79								
80								
81								
82								3
83								
84								
85								
86								1
87								
88								
89								
90								1
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								

2055 Sea trials

Date	Tow	Camera	Codend Mesh	Cover Mesh	Gear	Notes
6/20	1	N	6.5"	N/A	90mm horiz rollers	Rewelded frame to 90 mm spacing, rollerss cut into 6 in sections, new funnel
6/20	2	N	6.5"	3"	90mm horiz rollers	Start of temperature data, Hobo attached to lower codend
6/21	3	N	6.5"	3"	90mm horiz rollers	Netmind headline sensor on, same gear as last
6/21	4	N	6.5"	3"	90mm horiz rollers	2 Lobster pots, netmind door sensors on 27ft of .5" chain added 2.5lbs/ft=67.5lbs
6/21	5	Y	6.5"	6.5"	90mm horiz rollers	Changed upper codend (cover) to 6.5" codend, camera pointed at grid
6/21	6	N	6.5"	6.5"	90mm horiz rollers	same gear as last
6/21	7	N	6.5"	6.5"	90mm horiz rollers	netmind headline sensor on but erratic
6/22	8	N	6.5"	6.5"	90mm vertical rollers	netmind headline sensor on but erratic, grid turned 90deg in same spot, same grid
6/22	9	Y	6.5"	6.5"	90mm vertical rollers	Camera same position as tow 5, wing sensors on
6/22	10	N	6.5"	6.5"	90mm vertical rollers	Funnel changed to 1/2" mesh, wing sensors on
6/22	11	Y	6.5"	6.5"	90mm horiz rollers	camera same position as tow 5, turned grid back to horiz
6/23	12	Y	6.5"	6.5"	90mm horiz rollers	camera did not work, door sensors on average 250'
6/23	13	N	6.5"	6.5"	90mm horiz rollers	door sensors on average 245'
6/23	14	Y	6.5"	6.5"	105mm horiz rollers	grid on frame, frame too flat & blocked, grid tied flush at top of frame, ave. spread 240'
6/23	15	Y	6.5"	6.5"	105mm horiz rollers	Used larger fuse on camera, see pictures on both sides for changes after tow, good video
6/26	16	N	6.5"	6.5"	105mm horiz rollers	frame rigging corrected to tilt more
6/26	17	N	6.5"	6.5"	105mm horiz rollers	
6/26	18	N	6.5"	6.5"	105mm horiz rollers	Lobster pot in sweep, a lot of fish in front of grate
6/26	19	N	6.5"	6.5"	105mm horiz rollers	cod subsampled
6/26	20	N	6.5"	6.5"	105mm horiz rollers	
6/27	21	N	6.5"	6.5"	105mm horiz rollers	
6/27	22	N	6.5"	6.5"	105mm horiz rollers	Lobster pot
6/27	23	N	6.5"	6.5"	105mm vertical rollers	Lobster pot, changed to vertical
6/27	24	N	6.5"	6.5"	105mm vertical rollers	missing cover data sheet
6/28	25	N	6.5"	6.5"	105mm vertical rollers	
6/28	26	N	6.5"	6.5"	105mm vertical rollers	
6/28	27	N	6.5"	6.5"	105mm vertical rollers	
6/28	28	N	6.5"	6.5"	105mm vertical rollers	
6/28	29	N	6.5"	6.5"	105mm vertical rollers	Lobster pot
6/28	30	N	6.5"	6.5"	105mm vertical rollers	
6/29	31	N	6.5"	6.5"	90mm horiz rollers	
6/29	32	N	6.5"	6.5"	90mm horiz rollers	Lobster pot
6/29	33	N	6.5"	6.5"	90mm vertical rollers	
6/29	34	N	6.5"	6.5"	90mm vertical rollers	
6/30	35	N	6.5"	6.5"	90mm horiz rollers	
6/30	36	N	6.5"	6.5"	90mm horiz rollers	
6/30	37	N	6.5"	6.5"	90mm horiz rollers	
6/30	38	N	6.5"	6.5"	90mm horiz rollers	Net hauled at 14:15 due to rock in net,
6/30	39	N	6.5"	6.5"	90mm horiz rollers	pollack subsampled, lower codend came open lost half of fish
7/1	40	N	6.5"	6.5"	90mm diagonal no rollers	Lobster pots(2), pollack subsampled, hung up and set out again, results for the 2nd set
7/1	41	N	6.5"	6.5"	90mm diagonal no rollers	
7/1	42	N	6.5"	6.5"	90mm diagonal no rollers	Ended tow early (10:00) due to hang up
7/6	43	N	6.5"	6.5"	90mm diagonal no rollers	
7/6	44	N	6.5"	6.5"	90mm diagonal no rollers	
7/6	45	N	6.5"	6.5"	90mm diagonal no rollers	
7/6	46	N	6.5"	6.5"	90mm diagonal no rollers	
7/6	47	N	6.5"	6.5"	90mm diagonal no rollers	
7/6	48	N	6.5"	6.5"	90mm diagonal no rollers	Large hole in bosom of net, potential fish loss
7/7	49	N	6.5"	6.5"	105mm horiz no rollers	
7/7	50	N	6.5"	6.5"	105mm horiz no rollers	
7/7	51	N	6.5"	6.5"	105mm horiz no rollers	Lobster pot
7/7	52	N	6.5"	6.5"	105mm horiz no rollers	
7/7	53	N	6.5"	6.5"	105mm horiz no rollers	
7/8	54	N	6.5"	6.5"	105mm horiz no rollers	
7/8	55	N	6.5"	6.5"	105mm horiz no rollers	
7/8	56	N	6.5"	6.5"	105mm horiz no rollers	Cod subsampled
7/8	57	N	6.5"	6.5"	105mm horiz no rollers	

Species Abbreviations

Cod	Atlantic Cod (*Gadus morhua*)
HDK	Haddock (*Melanogrammus aeglefinus*)
GS	Grey Sole (witch flounder) (*Glytocephalus cynoglossus*)
BB	Blackback flounder (winter flounder) (*Psuedopleuronectes americanus*)
Red	Redfish (*Sebastes fasciatus*)
YT	Yellowtail flounder (*Limanda ferruginea*)
PLK	Pollock (*Pollachius virens*)
WHK	White Hake (*Urophycis tenuis*)
Monk	Monkfish (*Lophius americanus*)

C/E - Control (CTRL) or Experimental (Exp)

All experimental gear with 6.5" upper codend. Tow duration 1 hour off Kennebunkport (Area 2).

June 2005, Trip 1

Tow 1	Experimental							
6/20	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK
16								
17								
18								
19								
20								
21		1						
22								
23								
24								
25								
26				1				
27			1					
28								1
29	1		1	2				
30	1							
31	1	1		2				
32				2				
33	1							
34				2	1			
35				1				
36			1	3				
37	1	1	1	2				
38		1	2	1	1			
39		1	1	1				
40			1	1				
41								
42			1					1
43	1		1				1	1
44				2				1
45				1				
46		1		1			2	1
47	1		1				1	1
48	2			1			4	2
49		1					1	1
50							1	4
51	1	1					3	4
52	1		1				2	1
53		1					1	2
54	4	2					2	1
55	2	2						1
56	2	1						2
57								
58	3	3						
59	1	1						
60	2	1						
61	1	1						
62	3							
63	1							
64	1	2						
65								
66								
67								
68								
69	1							
70								
71								
72								
73								
74								
75								
76								
77								
78		1						
79								
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82								
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102								
103								
104								
105								
106								
107								
108		1						
109								
110								
111								
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113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123		1						

June 2005, Trip 1

Tow 2	Experimental							
6/20	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK
16								
17								
18								
19								
20								
21		3	1					
22						1		
23				2				
24			1	3				
25				3				
26				2				
27			1	2				
28				1				
29			1	2				
30			2	6				
31			2	9				
32			6	1				
33		1	2	3		1		
34			3	11				
35			2	2				
36			4	7	1	1		
37		1	4	1		1		
38			2	2				
39			4	3				
40			2	1		1		
41			2	1				
42			2	1			1	
43		1	2	1			1	
44			2	2				
45			1		1			
46		1	1	1				
47		1					1	1
48		3	1	2			1	
49		1					1	3
50	1	1	2				1	
51		4						1
52	1	3						
53		1					2	3
54		4						
55		1						1
56	1	4						
57	3	1						
58		3						
59		1						
60	1	3						
61	2	2						
62		3						
63								
64	1	6						
65	1	4						
66		2						
67	1							
68	1							
69								
70	1							
71		1						
72								
73								
74		1						
75								
76		1						
77								
78								
79								
80								
81								
82								
83								
84		1						
85								
86		1						
87								
88								
89								
90								
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92								
93								
94								
95								
96								
97								
98		1						
99								
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116								
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118								
119								
120								
121								
122								
123								

June 2005, Trip 1

Tow 3	Experimental							
6/21	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK
16								
17								
18								
19								
20				1				
21		1	1	2	1			
22			1	2				
23				4				
24				4				
25			2	8				
26			2	4				
27			1	4				
28		1		4				
29			1	3				
30		1	2	7		1		
31		1	6	6		2		
32		1	2	6		1		
33			1	5		2		
34			3	4		1		
35		1	2	4				
36			1	1		1		
37		1	2	2		1		
38				2				
39								
40			1	1				
41		1	1	3	1			
42		1	4	4				
43	1		1	2				1
44		2	1	1				2
45		3	1	1	1			2
46			1					2
47		1	1				1	
48								4
49		2		1				2
50				1				1
51	1	1						1
52		2						
53		3		1				
54	2	1						
55	2	1						2
56		1						3
57	1							1
58							1	
59								
60		1						
61								
62	1							
63								
64								
65		1					1	1
66		1						
67								
68								
69								
70								
71		1						
72		1						
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88		1						
89								
90								
91								
92								
93								
94								
95								
96								
97								
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112								
113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								

June 2005, Trip 1

Tow 4	Experimental							
6/21	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK
16								
17								
18								
19								
20								
21								
22								
23				1				
24								1
25				2				
26				2		1		
27			1	1				2
28		2		4				
29			1	6				
30				8		1		
31		1		1		1		
32			3	1				
33				7		3		
34			1	3	1	3		
35		1	1	2		2		
36				5	1	7		
37			3	2		4		
38		1	3	3	1	4		1
39			3					
40		2		2		1		1
41	1	1	4		1	1	1	
42			3	3		2		1
43	1	2	6	1			1	
44	1	3	2	2	2			
45	1	3		3	2			1
46	2	2						2
47				3				3
48	1	3	1	1			3	2
49	1	4		2	1			1
50		5	1				4	4
51		1						4
52	1	1						5
53	2	3	2					4
54	4	3						2
55	2	4						
56	2							1
57	1	2						
58	2	2						1
59	2	3						
60	2	2						
61	1	4						
62	2	1						
63	1	5					1	
64		1					1	
65		1						1
66		2						
67	1	1						
68		1						
69	1	1						
70		2						
71		2						
72	1	3						
73		1						
74		1						
75		1						
76								
77		1						
78		1						
79	1	2						
80								
81								
82	1	1						
83		1						
84								
85		1						
86		1						
87								
88		1						
89		2						
90								
91		2						
92		3						
93								
94		3						
95								
96		5						
97		1						
98		1						
99		2						
100		1						
101								
102								
103								
104		1						
105		2						
106		3						
107		2						
108		1						
109		1						
110		1						
111								
112								
113								
114								
115								
116								
117								
118								
119								
120		1						
121								
122								
123								

June 2005, Trip 1

Tow 5	Experimental							
6/21	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK
16								
17								
18								
19								
20								
21								
22								
23				1				
24								
25								
26			1					
27		1						
28								
29		1		2				
30			1					
31			1	3				
32				1				
33			1					
34			1	3	1			
35			4	3				
36			2	2	1	1		
37				6	1			
38				3				
39			5	4		1		
40			3	2		1		
41			4	2				
42			3			1	1	1
43	1	1	4	1		2		
44			3	1	1			
45		1	1	2			1	
46	2		4	1				
47	2		1	1			1	
48			1				1	1
49				1				
50			1	1				1
51	1	1					1	
52		1						
53		3					1	3
54								2
55	1	1					1	3
56								
57		1						
58	2	3						
59	2	2						
60	3	2						
61	1	1						
62	2	5						
63	1	4						
64		1						
65	1	2						
66		1						
67	2	1						
68	2	4						
69		3						
70		2						
71		1						
72		1						
73		1						
74		4						
75		1						
76	1							
77		1						
78		1						
79								
80	1	3						
81								
82								
83								
84		1						
85								
86		2						
87		1						
88								
89		3						
90								
91		2						
92		1						
93								
94		1						
95		1						
96		1	1					
97								
98								
99		3						
100		2						
101								
102		3						
103								
104		1						
105								
106		1						
107		1						
108								
109								
110		1						
111		1						
112		1						
113		1						
114								
115								
116								
117								
118								
119								
120								
121		1						
122								
123								

June 2005, Trip 1

Tow 6	Experimental							
6/21	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK
16								
17								
18								
19								
20							1	
21							1	
22							2	
23							3	
24							2	
25				1			3	
26			1				1	
27			1				3	
28							1	
29			1				2	
30			1				3	
31			1				2	
32			1				2	1
33			3	1				
34						1	1	
35			1					
36			1	2				
37			2					
38			4			1	2	1
39			4	2				
40			1	2		1		
41			2					
42			2	1	1			
43			1	4				
44								
45			1	1				
46			1					
47				1				
48								
49				1				
50								
51				1				
52	1							
53				1				
54	1							
55								
56								2
57								
58								
59	1							
60								
61	2							1
62		1						
63								
64								
65		1						
66								
67								
68		1						
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88		1						
89								
90								
91		1						
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								

June 2005, Trip 1

Tow 7	Experimental							
6/22	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK
16								
17								
18								
19								
20							1	
21							1	
22							2	
23							3	
24							2	
25				1			3	
26			1				1	
27			1				3	
28							1	
29			1				2	
30			1				3	
31			1				2	
32			1				2	1
33			3	1				
34						1	1	
35			1					
36			1	2				
37			2					
38			4			1	2	1
39			4	2				
40			1	2		1		
41			2					
42			2	1	1			
43			1	4				
44								
45			1	1				
46			1					
47				1				
48								
49				1				
50								
51				1				
52	1							
53				1				
54	1							
55								
56								2
57								
58								
59	1							
60								
61	2							1
62		1						
63								
64								
65		1						
66								
67								
68		1						
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88		1						
89								
90								
91		1						
92								
93								
94								
95								
96								
97								
98								
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101								
102								
103								
104								
105								
106								
107								
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111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								

June 2005, Trip 1

Tow 8	Experimental									
6/22	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK	Monk	Monk
16										
17										
18										
19										
20									1	
21									1	
22									1	
23										
24									1	
25									3	1
26									1	
27										
28										
29										
30				2					2	
31				2					1	
32				1					1	
33				1		1				
34	1			2						
35				1						
36										
37					1					1
38			1							
39			1							
40				2						1
41										
42				1		1				1
43	1		1	2						
44			1	1			1			
45			2	1				2		
46							1			
47		2		1						1
48										
49		3						1		
50	1	2						3		
51	1	3						1		
52	3	2								
53								1		
54										
55	1						1	3		
56		3						2		
57	1	2					1			
58		2								
59	1	3						1		
60	3	3								
61	1	2								
62	1	1								
63	5	2								
64	1	4						2		
65	1	3								
66		2								
67	1									
68		1								
69		2								
70		1								
71		1								
72		1								
73	2									
74										
75										
76										
77										
78										
79		2								
80	1									
81		1								
82										
83										
84										
85										
86		1								
87										
88										
89		1								
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115		1								
116										
117										
118										
119										
120		1								
121										
122										
123										

June 2005, Trip 1

Tow 8	Experimental									
6/22	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
L (cm)	Cod	Cod	Dab	Dab	GS	GS	HDK	HDK	Monk	Monk
16										
17										
18										
19										
20										
21				1					1	
22									1	
23									2	
24										
25										
26										1
27									2	
28				1						
29										
30									5	2
31			1	2					2	
32				1					1	1
33									1	
34									1	
35				2	1				2	2
36			2	3		1			2	
37			1	2					1	1
38			2		1	1				2
39			2							
40			2							1
41				1		1				
42			1	3	1					1
43				1						
44					1	1				
45				1		1				
46		1		1					1	
47		1	1	1		1			1	
48		1	1							1
49			2		1			1		
50	1									
51							2			1
52	1							1		2
53		1	1				1			
54	1	1								1
55								1		1
56	4						1	1		
57	2	1								1
58	1							1		
59	1									1
60	3	2								
61		1								
62	3	2								
63	2									
64	5	3								
65	1	2					1			
66	2	4								
67		2								
68	2									
69		4								
70	1	1						1		
71	2	2								
72		1								
73	1	5								
74	2	2								
75	2	3								
76										
77	1	1								
78	1	3								
79		3								
80	1	4								
81	1	1								
82	2	2								
83	1	5								
84	3	5								
85	1	3								
86	1	2								
87	1	3								
88	1									
89	2	5								
90	1	1								
91	2	2								
92		2								
93		6								
94	1	3								
95	1	4								
96		1								
97										
98		3								
99	2	2								
100		2								
101		5								
102	1	7								
103		6								
104										
105	1	5								
106		1								
107		1								
108		1								
109		1								
110		1								
111										
112										
113										
114										
115										
116										
117										
118										
119		1								
120	1									
121		1								
122										
123		1								

June 2005, Trip 1

Tow 9 Experimental

6/22 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18									1	
19									1	
20										1
21									3	
22									3	
23									3	1
24									4	
25									6	
26									2	
27									4	1
28									5	2
29	1								6	1
30				1					8	1
31				1					4	2
32			1						3	
33				2					3	
34			6	1					4	1
35				1					1	
36			3	1	1				2	
37				4		1				1
38			2	5					1	1
39		1		4	2	1			2	
40			2	3		2			1	
41			2	7						1
42				1						1
43	1		2	3					1	
44		1	2	4	1					1
45		1		3	1	1				
46		3	1							1
47		1	1	3				1		
48		3							1	
49		1		1					1	
50		3		1						1
51	1									1
52		6								
53	1	3						1		
54	1	2								1
55	4	5						1		1
56	2	7	1					1		2
57	1	1								1
58	3	6					1	1		
59	1	7						1		
60	1	1							1	
61	1	4								
62	2	5								
63	1	4								
64	1	4								1
65	1									2
66		3						1		
67		2								
68		1								1
69										
70										
71		1								1
72		3								
73	3	3								
74										1
75	1									
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89		1								
90										
91										
92										
93		1	1							
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										

June 2005, Trip 1

Tow 10 Experimental

6/22 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK
16					1			
17								
18					1			
19					3			
20					3			
21					6			
22			1		8			
23					5			
24			1		13			
25			1		6			
26			2		8			
27					2			
28				1	5			
29			2	1	4			
30				1	2			
31			1	2	2			
32			1	2	4			
33			1	2	1	1		
34			1	1	1			
35			4	6				
36			2	4				
37				2				
38			2	4				
39			4	2		2		
40			3	4				
41			2	2				1
42				2		2		
43			5	2		1		
44			4	3				
45			1	2				
46			1	1				
47			1	2				
48			1	4				
49			2			1		
50				1				
51	1							
52								
53								
54					1			
55								
56		1						
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67		1						
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								

June 2005, Trip 1

Tow 11 Experimental

6/22 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK
16								
17								
18								
19								
20								
21								
22								
23			1					
24			2	2				
25								
26				1				
27			1	1				
28			4					
29			2					
30	1		2					
31			4	1				
32	1		1	2				
33			5	1				
34			1	2	1	1		
35						3		
36			2	2				
37			1	3		1		
38			1	2				
39				2				
40				5				
41			1	2				
42			2					
43		1		4				
44					3			
45			2					
46			2		1			2
47		1		1		1		2
48		1	1					2
49	1	1	1				1	1
50		3						1
51	1	1						
52	1							1
53		1	1					
54								1
55								1
56		2					1	1
57		1						
58		2						1
59		1						
60		3						
61								
62		1						
63		3						
64		2						
65								
66		3						
67								
68		1						
69								
70								
71								
72								
73								
74								
75		1						
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105		1						
106								
107								
108								
109								
110								
111								
112								
113		1						
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								

June 2005, Trip 1

Tow 12 Experimental

6/23 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper PLK	Lower PLK
16										
17								1		
18										
19										
20										
21								1		
22					1					
23										
24				1						
25					1			3		
26				1						
27								1		
28					2			1		
29					2			3		
30				1	1					
31					2			1		
32				1	1			1		
33					1					
34					2		3			
35				1	6	1	2			
36				1	3					
37				1	1					
38			1		3		3			
39					3		1			
40				2	4		1			
41				1	3		1			
42				2	2	1	5			
43				1	2		1			
44				1	4					
45			2		1					
46				1		1	2			
47			1	1	1				1	
48		1	1						1	
49		1							1	
50			1		1					
51			2							
52										
53			1	1					2	
54			2							
55										
56			1							
57			3		1					
58		1	2							
59			1						1	
60									1	
61			2						2	
62			5							
63			3						1	
64			1							
65			2						1	
66										
67										
68			1						1	
69										
70			2							
71			1							
72										
73										
74										
75										
76										
77										
78										
79			1							
80										
81			2							
82										
83										
84			1							
85										
86										
87										
88										
89			1							
90			2							
91										
92			1							
93										
94										
95										
96										
97			1							
98			1							
99										
100			1							
101										
102										
103			2							
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										

June 2005, Trip 1

Tow 13 Experimental

6/23 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18									1	
19										
20									2	
21									4	
22										
23									1	1
24									2	
25									2	
26										
27									1	1
28			1						2	
29			1						2	3
30				1					2	3
31										2
32			1	1	2				3	1
33			2						2	2
34				2		1			1	
35			3	1					2	2
36				1					3	1
37			2	1	1	3				
38			1	5		2				
39			1	4		1				
40				2		2			1	1
41			1	4						
42			2	1						1
43	1		1	2						
44						3				
45		1		1		1		1		
46										
47					2				1	1
48			1	1			1	2		
49		1		1						
50		1						1		
51			1					2		
52	1	2						2		1
53		1	1		1			1		2
54		1						4	1	
55		2						1		1
56								2		
57		1						2	2	1
58	1	4								1
59		2								1
60		12								
61		3								1
62		5								
63		3								
64		12								
65		4						2		
66		3								
67		8								
68		3								
69		1								
70		5								
71		1								
72										
73		4								1
74		4								
75										
76		2								
77		1								
78		1								
79	1	1								
80		1								1
81		2								
82		1								
83		1								
84										
85										
86										
87		1								
88		1								
89										
90		1								
91		1								
92										
93										
94		1								
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										

June 2005, Trip 1

Tow 14 Experimental

6/23 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper Monk	Lower HDK	Upper HDK	Lower Monk
16										
17										
18										
19										
20										
21							3			
22							2			
23							1			
24			1				2			
25										
26							3			1
27				1			1			
28				1			1			2
29			1				1			
30							1			2
31			1			1	2			2
32			1	1			1			2
33										1
34			1				1			
35			2	1						1
36			1			3				
37				1						2
38			1	1		2				2
39			3	3						1
40			4	2	1					
41				1	1		1			2
42				3	1	1				
43			1	2			1			
44		1	1	2	1					1
45	1			2		2				3
46			2	1						
47		1		2				1		
48				1						
49		1								2
50			1	1						1
51	1		1				1	1		
52										1
53		1						2		1
54							1			
55	1	2								
56		2								
57		2								
58	1						1			1
59	1	1								2
60		4								
61										
62	1	2								1
63		1								
64		1								
65	1									
66		2								1
67		1						1		
68		3								
69										
70		2								
71		1								
72	1									
73		1								
74										
75		4								
76										
77										
78										
79		4								
80		1								
81										
82		4								
83		1								
84		3								
85		2								
86										
87		2								
88		1								
89		1								
90		1								
91		1								
92										
93										
94										
95		1								
96										
97										
98										
99										
100		1								
101										
102		1								
103										
104										
105										
106		1								
107										
108										
109										
110		1								
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										

June 2005, Trip 1

Tow 15 Experimental

6/23 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19									1	
20										
21			1						1	
22									1	
23			1						1	
24				1						
25			2	1					6	
26			1						3	
27										
28			2						2	
29			1						3	
30			1	1					2	
31			5							
32			2						1	
33			2						1	
34			7						1	
35			4	3	1				1	
36			2							
37			2	3	1					
38			5	1						
39			4	1						
40		1	3	2						
41	2		5	1		1			1	
42			3							
43	1		3							
44			2	1			1		1	
45		1	2							
46			2							
47					1					
48										1
49							1	1		
50		1	1							
51										
52			1							
53	2	1					2			
54	1									
55	1									
56	1									
57	2	1								
58	3	2					1		1	
59	1	1								
60	3	1								1
61		1								
62	1									
63	1									
64										
65										
66		1								
67	1	1								
68	1									1
69		1								
70		1								
71	1	1								
72	1									
73										
74										
75		1							1	
76										
77										
78										
79										
80		2								
81		1								
82										
83										
84										
85										
86										
87										
88										
89										
90		1								
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107		1								
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										

June 2005, Trip 1

Tow 16 Experimental

6/26 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk	Upper PLK	Lower PLK
16									1			
17												
18												
19												
20												
21												
22			2						2			
23									2			
24									4			
25				1					1			
26			1						4			
27									2			
28			2						1			
29			3	1					3			
30			1						3			
31			5						3			
32			2	1								
33			3						3			
34			4	1								
35			5	1					1			
36			4			1			2			
37			7	1					1			
38			5	1	1							
39		1	4		2							
40			4	2					1			
41			3						3	1		
42	1		3	1	1				1			
43			3		1							
44			6									
45			1									
46			1									
47			1									
48			5				1					
49			2						1			
50		1	2									
51	1								1			
52			1									
53				1					1			
54	1		1				1	1				
55								1				
56	2	2										
57		1										
58	1											
59	2											
60	1	4										
61												
62		1										
63	1	1										
64	1											
65												
66	1	2										
67		1										
68	1											
69	1											
70												
71												
72												
73												
74												
75	1											
76	1											
77												
78												
79		2										
80												
81		1										
82		1										1
83		1										
84		1										
85		1										
86	1											
87												
88												
89		1										
90		1										
91		1										
92												
93												
94												
95												
96												
97		1										
98												
99												
100												
101		1										
102												
103												
104												
105		1										
106												
107		1										
108												
109												
110		1										
111												
112												
113												
114												
115												
116												
117												
118		1										
119												
120												
121												
122												
123												

June 2005, Trip 1

Tow 16 Experimental

6/26 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20									1	
21										
22										
23									1	
24									2	
25			2						6	
26									3	
27									3	
28			1						5	
29									3	
30			5	1					4	
31									1	1
32			1		1				5	1
33			1	1						
34			4		1					
35				2					3	1
36				1					1	
37			6	4	1				2	1
38			1	1			1		1	
39			4	3					2	
40			3						1	1
41			2	2					3	
42			1	1	1				1	
43			2	2	2					1
44			2			1			3	
45			2	1		1				
46			1	1					1	
47		1	2	2						1
48				2						1
49		1	1	1						
50										
51	2	1		1						
52		1								
53	2	3								
54	2	2							1	
55	1	2					1	1	1	
56	1	7								
57		6								
58	2	6							1	
59	2	3								1
60		5						1		
61	1	4					1	1		1
62	1	3						1		1
63	2	2								
64		5								
65		4								
66	1	5								
67	2	2								1
68		4						1		
69		2								
70		5								
71	3	4								
72		2								
73	2									1
74	1	2								
75		1								
76		2								
77										
78		1								
79										
80										
81		1								
82										
83		1								
84		1								
85										
86		1								
87										
88		1								
89		4								
90										
91										
92		1								
93										
94										
95										
96										
97										
98		1								
99										
100		1								
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114		1								
115										
116										
117										
118										
119										
120										
121										
122										
123										

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Tow 17 Experimental

6/26 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk	Upper PLK	Lower PLK
16												
17												
18												
19												
20												
21												
22				1								
23												
24									2	1		
25				1								
26									4			
27			1						4			
28			1									
29									3			
30			1						3			
31			1		1				2			
32			1						5			
33					1	1			4			
34			1	1		1			2			
35			3	1					1			
36			2	1					4			
37					1	1			1			
38			3	2	1	1						
39				1					2			
40			4			1						
41			3	5						2		
42			2		1							
43			1	1	1	1						
44	1					2	1		2			
45			2	2		1		1				
46			2	1	1				1			
47				1	2	1						
48			1	1		1	2	1				
49			1					1				
50	1			1			1	1	1	3		
51	1				1			2				
52	3						1	5		1		
53	1						2	2	3			
54			1				1	4				
55							4	3				
56		1						2		1		2
57	1											
58	1						2	4		1		
59	1						1	1		1		1
60	3							4				3
61	2						1	2				6
62							1					1
63	2						2					
64	3									1		4
65	4											3
66												2
67	1						1	1				
68	1											
69	1									1		2
70										1		1
71							1			1		
72	4											2
73												2
74	1									1		2
75	2											1
76	1											1
77												
78												
79	1											
80	1											
81												
82	1									1		
83												
84										1		
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98		1										
99		1										
100												
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												
120												
121												
122												
123												

June 2005, Trip 1

Tow 20 Experimental

6/26 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk	Upper PLK	Lower PLK
12												
13												
14												
15												
16												
17												
18												
19									1			
20									1			
21									1			
22									1			
23			1		1				4			
24			1						10			
25			3						6			
26			1						2			
27			2						4			
28									3			
29			4						4			
30			3						5			
31			2						2			
32			4	1								
33												
34			1						2			
35			12	1	3				1			
36			2	1						1		
37			3	1	1				3			
38			4	1	1	1				1		
39			4	3								
40		1	3	2								
41			5	2					1			
42			3		1				1			
43	1		2						1			
44			3	1				1	1			
45			1									
46		1			1					1		
47			1									
48			1	1			1					
49										2		
50	1		1									
51	1											
52	2	2										
53					1							
54	1											
55	1	1								1		
56								1				
57												
58	2						1					
59												
60												
61												
62												
63												
64												
65												
66												
67	1											1
68												
69												
70												
71												
72												
73												
74												
75												
76												
77												
78												
79												
80												
81												
82												
83												
84												
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												

June 2005, Trip 1

Tow 21 Experimental

6/27 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19										
20										
21									1	
22										
23									1	
24			1						1	
25									2	
26				1					5	
27			2	1					3	
28				1					4	
29			4						3	
30			2						1	
31			2						2	
32			3						2	
33			3		1					
34			4						2	
35			3	1	1				1	
36									2	
37			5							
38			5	1	1	1				
39			3	1	1					
40			1	1	1	1				
41			3	3						
42			5	3	2				1	
43			2	1				2		
44			4		2				3	
45			2							
46			2	1						
47								1		
48	1									
49	1		1		1				1	
50					1					
51								1	2	
52				1					1	
53	2						1			1
54			1					1		
55										
56	1							2		
57		1								
58	1	1							2	
59	1									
60		1								
61	2	2								
62		1						1		
63		2								
64		1								
65										
66	1	3								
67										
68	1									
69										
70										
71										
72										
73										
74										
75	1									
76	1									
77										
78										
79										
80										
81										
82		1								
83										
84										
85										
86										
87										
88										
89		1								
90										
91	1									
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104		1								
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117		1								

June 2005, Trip 1
Tow 22 Experimental

6/27 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24			1						1	
25			1						1	1
26									1	
27			2	1					4	1
28									1	2
29			1						1	1
30			3						4	1
31			1						2	
32			3	1					4	1
33			1	1					1	2
34	1			1	1				1	3
35			5	3					1	
36			1	1					1	1
37			3	4		1				2
38				2	2	1				
39			1							1
40			1		1				1	
41	2		3	3						
42			1	2					1	
43			2	1	1	2				
44			1	1						
45	1		1	1						
46					1				1	
47			5		1				1	
48	3			1				1		
49										
50	1	4	1					1		
51	1	4						3		
52	2	5						2		
53	2	4	1					3		
54	4	5						2		
55	2	8						1		
56	4	6								1
57	1	6						1		1
58		10					1			
59	2	2						1		2
60	4	11						1		
61	3	10						2		
62	4	7								
63	2	7								1
64	4	3								
65	5	5								
66	2	1								
67	1	4								
68	1	5								
69		7								
70	5	7								
71	1	4								
72	1	2								
73		1								
74	1	1								
75	1	2								
76	1									
77	1	1								
78		1								
79		1								
80										
81		4								
82		2								
83										1
84		2								
85		1								
86		1								
87										
88										
89		2								
90		1								
91		1								
92										
93		1								
94	1									
95		1								
96		2								
97		1								
98										
99										
100		1								
101										
102										
103										
104										
105										
106		1								
107										
108		1								
109										
110		1								
111										
112										
113										
114										
115										
116										
117		1								

June 2005, Trip 1
Tow 23 Experimental

6/27 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19										
20									1	
21										
22									2	
23										
24									3	
25									2	
26									3	
27										
28			1						2	
29									2	
30			1						3	
31				1					3	
32			2						3	
33			1						1	
34				1	2				3	
35		1	1						3	
36			1						2	
37			7	2						
38			1	1		1			1	
39			1	1	2					
40			3	1						
41			1	1					1	
42			1	2	2				1	
43			2	1						
44			5		1	2			2	
45			3	2			1		2	
46		1	2							
47			1	1						
48								1		1
49	2		1	1				1	1	1
50	2		1		1					
51	1									
52	1			1						
53	4	1							2	
54	2	1						2		
55	1									2
56	1	1								1
57		4								
58	3	2								
59	1	6								
60	6	1						1	1	
61	2	1					1			
62	1	2								
63	1	3								
64	2	1								
65										1
66	1	3								
67	1									
68	1	1								
69	1									
70	1	1								
71	1									
72	1									1
73										
74	1									
75										
76										
77										
78										
79										
80	1		1							
81										
82										
83										
84										
85										1
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 24 Experimental

6/27 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Lower Monk	Upper Monk
12										
13										
14										
15									1	
16										
17										
18										
19										
20										
21										
22										1
23			2							2
24										3
25			1							4
26				1						3
27			1	1						2
28			1							1
29			2							1
30			1	2						2
31			5	2						3
32			3							
33			3	1						2
34					1				1	
35			6							3
36			5							4
37			3							
38			3							
39			4							
40			4							
41			8							
42			3		1					
43			3	1	1		1			
44				2					1	
45			2	1						1
46				2				1		
47				2						
48		1	1							
49	1		1					1		
50				1						
51				1						
52			1					1		
53	1									
54								1		
55									1	
56		1								
57		2								
58		1							1	
59										
60	1									
61		1								
62		2								
63										
64										
65										
66										
67	1	1								
68										
69										
70		1								
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 25 Experimental

6/28 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Lower Monk	Upper Monk
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										1
24										4
25			1							3
26			1							3
27			4							2
28			1						1	5
29			4							1
30			1							3
31			3	1						4
32			3							
33			7							2
34			5							2
35			8	1	1					1
36			1		1				1	1
37			4							1
38			3							
39			2							1
40			3	1						1
41			2	1					1	
42									1	
43			2							
44			2							
45			2		1					
46			1							
47			2							
48			2							
49	1									1
50		1					1			
51	1									
52		1								
53										
54									1	
55	2								1	
56		1								
57										
58										
59		3								
60		1								
61	2									
62										
63		1						1		
64										
65	1									
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93	1									
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 26 Experimental

6/28 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19									2	
20										
21									2	
22									1	
23										
24									1	1
25										
26				1					4	
27									3	
28									1	
29			1						2	
30		1							2	
31				1					1	
32			1						1	
33									2	
34			1		1				1	
35			2			1			1	
36									3	
37			1	1	1					
38			2	3		1				1
39				1		1				
40			5	3	1					
41			2	2	1					
42			2	1		1				
43			3	1	2				1	1
44			2			1				
45		1	1							
46			1	1						1
47		1	1							1
48			1	1	1			1		
49			1					1	1	2
50	1		1					1		
51								1		
52	1	2		1				1		
53	2	1						2		
54		1								
55	3	2						1	1	1
56										
57		2					1	1		
58	3	2								
59										
60	1	5								
61	2						1	1		
62	1	1								
63		2								
64		7								
65	2	2								
66		1								1
67		1								
68	2	2								
69		2								
70										
71										1
72		2								
73		1								
74										
75		2								
76	1	1								
77										
78										
79	1	1								
80										
81	1	1								
82										
83		1								
84		1								
85										
86										
87										
88	1									
89										
90		1								
91										
92										
93		1								
94										
95										
96										
97										
98	1									
99										
100										
101										
102		1								
103		2								
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 27 Experimental

6/28 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19										
20									1	
21									1	
22									1	
23									1	
24									2	
25									3	
26									3	
27									4	
28									1	
29									4	
30									1	
31									1	
32			1						3	
33			1						2	
34				2					5	
35						1			3	
36						1			1	
37			5	1		2				
38			1	1						
39			1						2	
40			2	1		1				
41				1	2					1
42			6	1						1
43			1	1	1			1	1	
44			2	2	1	2				
45				1	1			1	1	1
46			1					1		
47								1		1
48							1	1		
49							1	2	1	1
50							3	2		
51				1						
52								5		1
53								2		
54		1					1			
55		1					1	3		
56		1					1			1
57		1								
58		1								1
59		2						1		
60							1			1
61		2								1
62		1								
63		1								
64										
65	1	1								
66		1								
67		1								
68		2								
69	1									
70		1						1		1
71										
72										
73										
74	1	2								
75										
76	1									
77										
78	1									
79										
80	3									
81	1									
82	1									
83		1								
84	1									
85	1									
86		1								
87										
88		1								
89	1									
90										
91		1								
92										
93	1									
94										
95										
96		1								
97		1								
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 28 Experimental

6/28 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19									1	
20									1	
21										
22									1	
23									2	
24			1						3	
25									3	
26			4						3	
27			2	2					3	
28			2						3	
29									2	
30			3	2					1	1
31				1						
32			2							
33			2	1						
34			2						1	
35			4	1						
36			4	1						
37			1	1					2	
38			3							
39			4		1					
40			4			1				1
41			5	1					1	2
42			1	1		2				1
43				1			1		2	1
44										
45			1						1	
46										
47			1				1			
48	1		2	1						
49										1
50										1
51										
52										
53	1						1			
54	1	1					1			1
55	2	1		1				1		
56	1	1								1
57		1								1
58	1	1								
59	2	2								
60	1									1
61		2								
62	3	1								
63		1								
64								1		
65		1								
66		1								
67		1								
68		2								
69										
70		1								
71	2									
72										
73	1									
74	2	2								
75										
76										
77	1									
78	1									
79										
80										
81										
82										
83		1								
84										
85										
86		1								1
87										
88		1								
89										
90										
91		1								
92										
93										
94										
95										
96		1								
97		1								
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 29 Experimental

6/28 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18									1	
19										
20									1	
21			1							
22									3	
23									2	
24			2						2	
25			2						3	
26									4	
27									1	1
28									1	
29			1						1	
30			2	1					2	
31			2	1						
32				3					2	
33			3	1					4	
34			7	1					1	
35			4	2	1	2			2	
36			4	2		1				3
37			4	4					1	
38			1	2		1				1
39			1	2		1			1	
40			2	2	1	1				
41			3			1				1
42			3	1	1					1
43			2	2	1					1
44			1	2					1	1
45			4	1	1	1			1	
46			2	1					1	2
47			1	3		1				
48			1		1					1
49				1			1			
50										
51								1	1	
52			1							1
53		1		1			1			1
54	1				1					
55	1	1								1
56										
57		1							1	
58	1	1								
59	1									
60		1								
61		1								
62										
63	1							1		
64		1								
65										
66										
67										
68	1									
69										
70		1								
71										
72										
73										1
74		1								
75										
76										
77										
78		1								
79										
80										
81		1								
82										
83										
84										
85										
86		1								
87										
88		2								
89										
90		1								
91		1								
92										
93		1								
94		1								
95										
96										
97										
98										
99										
100										
101										
102		1								
103										
104										
105										
106		2								
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1

Tow 30 Experimental

6/28 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19										
20										
21			1						1	
22									2	
23									1	
24			1							
25			1	1					1	
26				1					1	
27			1						4	
28			4						2	
29			5						1	
30			4						3	
31				1					1	
32			1		1				1	
33			4						3	
34	1		3		1				2	
35			3	1					2	
36			1	1		1				
37			3	1	1	1		1	2	
38			4	1	1				1	
39			1	1	2				2	
40			4						1	
41			2	1	1	1				
42										1
43			1		1				2	
44				2						
45			3		1					
46	1									
47			3		1					1
48		1	1	1	1					1
49			1					2		1
50							1	1		1
51		1	1							
52										1
53		1		1				1		
54	1									
55										
56	3	1								
57	1	1								
58	1	2								
59	1									
60	1	2						1		
61										
62		1								
63	1	2								
64		2								
65	1	1								
66										
67		1								
68										
69										
70										
71		1								
72	1									
73										
74										
75										
76										
77										
78	1	1								
79		1								
80										
81										
82		1								
83										
84										
85										
86										
87		1								
88										
89										
90		1								
91										
92		1								
93										
94										
95										
96										
97										
98										
99										
100										
101		1								
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1

Tow 31

6/29 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper PLK	Lower PLK
12										
13										
14										
15										
16					1					
17										
18								1		
19										
20										
21										
22								1		
23				1						
24									1	
25										
26								3		
27				1				5		
28				2				1		
29				3	1			5		
30				2						
31				1				2		
32				2	1					
33				4	2			2		
34				1	2					
35		1		2	5				3	
36								1		
37				2	2			1		
38					4				1	
39					2	1				
40				3	3	1	3	1		
41				4	2	2				
42				3	2					
43				1	1			1		
44				2		1				
45		1		1	1					
46				1						
47										
48										
49										
50				1		1				
51				1						
52				2						
53			1				1		2	
54			1							
55		1								
56			2						1	
57			2							
58			1						1	
59		1	2							
60			3						2	
61										
62			2							
63										
64										
65		1	1							
66		1								
67			2							
68										
69										
70										
71										
72			1							
73										
74										
75										
76			1							
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87			1							
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112			1							
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 32

6/29 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper PLK	Lower PLK
12										
13										
14										
15										
16										
17										
18										
19										
20									1	
21										
22										
23				1						
24									1	
25				1						
26										
27										
28										
29					1				2	
30				4	2				1	
31				1					1	
32				1	2		2			
33				2			1			
34					2		1			
35				5	1	1				
36				1	1					
37				4	1	1	1		1	
38			1	4	2	2	1		1	
39				3			1			
40				3					1	
41				1	1	1	1	1	1	
42					2			1		
43				2	1				1	
44				5	2		1	1		
45		1	1	1	1		1	1		
46						1	1		1	
47			1				2		2	
48			1	1		1		3		
49		1	1			1		1		
50		1	1					1		
51			1					4		
52		1	1					2		
53			2							
54		1		1				2		
55			1					1	1	
56		2	5						1	
57		1	2							
58		1	1							
59			1					1		
60		3	1							
61			2					1		
62										
63		1	2						1	
64		2	1						1	
65			1							
66			1							
67			3						1	
68										
69			1							
70		1	4							
71										
72			2							
73			2							
74			1							
75			1							
76										
77										
78			2							
79										
80										
81										
82										
83										
84			2							
85			1							
86			3							
87			2							
88										
89										
90										
91			1							
92										
93										
94			2							
95										
96			1							
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 33

6/29 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
12										
13										
14										
15										
16										
17										
18										
19									1	
20										
21									2	
22									2	
23									4	
24			1						3	
25									3	
26			1						3	
27									2	
28									5	
29			4	1					1	
30			1						2	
31			1	1					3	
32									3	1
33			1		1	1			1	
34			3						3	
35			1	2					1	
36				1		1			1	
37			1	1	1				4	
38					2				5	
39				2					2	1
40			1	4	1					
41			1	3					2	
42				2		2				
43			1	2						
44				3						
45					1				1	
46			1	2						
47										1
48						1			1	1
49		1								1
50				1	1		1	1		2
51	1	1					1			
52	1									2
53		3						1		1
54		1								
55				1			2	1		
56	2	1								2
57	1							1		
58	2	5								
59		4						1		
60		1								1
61										
62		1								
63	1	2								1
64		2								
65	1									
66		2								
67		2								
68	1	1								
69		1								
70		1								
71	2									
72										
73	2									
74		1								
75		3								
76										
77		1								
78		2								
79										
80										
81										
82		1								
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94		1								
95										
96										
97										
98		1								
99										
100										
101	1	1								
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114		1								
115										
116										
117										

June 2005, Trip 1
Tow 34

6/29 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk	Upper PLK	Lower PLK
12												
13												
14												
15												
16												
17												
18												
19												
20									1			
21									1			
22									2			
23									3	1		
24									7			
25									6			
26			1						6	1		
27				1					10			
28			3						2	2		
29				1					2			
30			2						4	1		
31			1	1					3			
32						1			1			
33				2					3	1		
34			1	1	1				2	1		
35			2	4					1			
36				2		1			3			
37			2	1	1	1			2	2		
38			1	2		1			2			
39			1	1					1			
40			2	1		3						
41			2							1		
42			3	4	2	1						
43			3	2	2					1		
44			2	2	2							
45	1			1		1		1				
46	1				2			3				
47						1			1			
48	1					1	2			2		
49							3	1				
50								2	1	1		
51	2							3		1		
52	1											
53	2							3	1			
54								4				
55	2							3	1			
56	3							6	1	1		
57	6							2		1		
58	3	1										
59	2			1				1				
60	2	3					1	3		1		
61	2											1
62	3	1						2		1		
63	1	1						2				
64	3											
65	2											
66		1										
67	1											
68	2									1		
69	1											
70	2	1					1					
71	1							1				
72	2											
73												
74												
75	1											
76		1										
77	1											
78												
79										2		
80												
81												
82												
83												
84												
85												
86												
87												
88												
89												
90												
91												
92												
93												
94												
95												
96												
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												

June 2005, Trip 1
Tow 35

6/29 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper PLK	Lower PLK
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24				1						
25				1	1					
26										
27										
28				1						
29				1						
30				2	1					
31						1				
32				2						
33				2	1	2	1			
34					1	1			1	
35				4		1			1	
36				3						
37				2					1	
38				2	1					
39				2	1	1				
40				2	1					
41				3	1	1				
42				1						
43				3	1					
44				1		1				
45				2			1			
46			1					1		
47				1						
48				3	1					
49						1		1		
50			1							
51			2							
52			1						2	
53			2	1						
54		1	2							
55		2							1	
56		2	2							
57		1	2							
58		1	2							
59			3							
60		2	5						1	
61		1	3							
62		1								
63		2								
64		3	3							
65			4							
66		1								
67			5							
68			3							
69			2							
70		2	2							
71			1							
72			1							
73			1							
74			3							
75										
76										
77										
78			2							
79										
80										
81										
82			2							
83										
84										
85										
86										
87			1							
88										
89			1							
90			1							
91			1							
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104			1							
105			1							
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 36

6/30 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper PLK	Lower PLK
12										
13										
14										
15										
16										
17										
18										
19								1		
20										
21										
22								1		
23								1		
24										
25								2		
26								2		
27				1				2	1	
28				1				1		
29					1			1		
30				1	1			1	1	
31				1	2			2		
32			1		1			1		
33					1		1	2		
34				2	1			2		
35					1			1	1	
36			1		1		1	1	1	
37				1	1			2		
38				2	1					
39					1		2		2	
40				1		1	1			
41				1	3		2		1	
42				2	2				1	
43				4	2		1		2	
44				2	2					
45				1	1				2	
46										
47				3	1					
48										
49			1							
50			1					1	1	
51			2				1		2	
52			1							
53			2		1					
54			1						1	
55			1							
56		1	3							
57			3							
58			6							
59			7						1	
60			2						1	
61		1	3							
62		1	3							
63		1	2						1	
64		1	4						1	
65			3							
66			4							
67										
68			1							
69										
70			2							
71										
72			3							
73			1							
74										
75		1								
76			2							
77			1						1	
78										
79			1							
80			1							
81			1							
82										
83										
84			1							
85										
86										
87			1							
88										
89			1							
90			1							
91										
92										
93			1							
94										
95										
96			1							
97			1							
98										
99			1							
100										
101										
102										
103										
104										
105										
106										
107										
108										
109			1							
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 37

6/30 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper PLK	Lower PLK
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22					1			1		
23									1	
24								2		
25					1			2		
26								1	1	
27				1	1			1	1	
28								2		
29				2				1	2	
30				3	1					
31				1	1		1	2		
32				1	2		2			
33				3	1			3		
34				3	1					
35				1	5	3				
36					1		1			
37				2	2				3	
38				1	2		1		2	
39				2	3		1			
40					6		3			
41			2	1	1		1			
42				2	3		3			
43				1	1	1	2			
44					2		2			
45					1	1				
46					2					
47			1	1	2				1	
48		1		2	1		1		1	
49									1	
50		1			1					
51			2		1					
52										
53			2							
54										
55		1	6							
56			1						1	
57			2						1	
58		1	3						1	
59			4						1	
60		2	4							
61			6						1	
62		1								
63			4							
64			2						2	
65										
66			3							
67			1							
68			2							
69										
70		1	3							
71										
72			1							
73			2							
74			1							
75			1							
76										
77			3							
78			2							
79			1							
80			1							
81										
82			1							
83			2							
84										
85			1							
86			1							
87			2							
88										
89										
90			2							
91			1							
92										
93										
94										
95			1							
96										
97										
98			1							
99										
100			1							
101			1							
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1
Tow 38

6/30 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								1
23					1			1
24								
25								
26								
27								1
28								
29				1	1		1	3
30					2		1	2
31				1				2
32				1	2			1
33				2			3	
34				1		1	1	3
35					1		1	2
36				1	2			2
37					1			
38								
39				1	1			
40				2	1			
41				1			1	
42				1	1			
43				1			1	
44				1				
45				1			1	
46					1		2	
47								
48					1			
49								
50				1	1		1	
51							1	
52								
53				1				
54		1						1
55								
56		1						
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69			1					
70								
71								
72			1					
73								
74			1					
75			1					
76			1					
77								
78			1					
79								
80								
81			2					
82								
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								
93								
94								
95			1					
96								
97								
98			1					
99								
100			1					
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								

June 2005, Trip 1
Tow 39 Experimental

6/30 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper Monk	Lower Monk	Upper HDK	Lower HDK
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22				1						
23										
24										
25										
26										
27										
28										
29				1						
30						1				
31				1					1	
32										
33									1	1
34										
35				1	1					
36									1	
37										
38						1				
39			1			1		1	1	
40										
41			1	1		1				
42					2					
43				1						
44										
45										
46				1						
47			1		1					
48										
49	1									
50										
51										
52	1									
53										
54										1
55										
56										
57										
58										
59	1							2		1
60	3	1						1		
61								1		
62	1									
63	2							3		
64	1							2		
65	1							2		
66	2							2		
67								2		
68	1							1		
69	1						1	4		
70	1	2					1	3		
71								3		
72								1		
73										
74							1	2		
75	1						1			
76								1		
77										
78								1		
79								1		
80								1		
81										
82										
83								1		
84										
85	1									
86										
87		1								
88										
89										
90										
91										
92										
93										
94										
95										
96										
97		1								
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										

June 2005, Trip 1

Tow 40 Experimental

6/30 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk	Upper PLK	Lower PLK
16												
17												
18												
19												
20				1								
21				1								
22												
23												
24												
25												
26				1								
27									2			
28						1			1	2		
29									1			
30									1	1		
31									2	1		
32												
33										1		
34			1	1								
35				1								
36			1	2					1	1		
37						1						
38			1	1					1			
39			1			1				1		
40			1	4		2						
41				1		1						
42			3	1		1						
43			1	1	1	2						
44				1		1						
45					1							
46				1	2				1	1		
47				2	2	1				1		
48									1			
49												
50										2		
51										1		
52										1	1	
53	1		1					1	1			
54	1								1			1
55		1										
56								2				
57									1			
58		1								1	1	
59		2									1	2
60											1	4
61	1											11
62												7
63	1							1		2	3	9
64	1	1									1	5
65	1										1	6
66										1	2	8
67		1									1	11
68		1									1	11
69		1									1	14
70		2									3	7
71											4	12
72												2
73											1	13
74	1											5
75		1										4
76		1										6
77												4
78											1	2
79												2
80											1	
81												
82												
83		1										1
84		1										
85												1
86												
87												
88												1
89		1										
90												
91												
92												
93												
94												
95												
96												
97	1											
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												
120												
121												
122												
123												
124												

June 2005, Trip 1

Tow 41 Experimental

7/1 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk	Upper PLK	Lower PLK
16												
17												
18												
19									1			
20												
21												
22						1			1			
23				1					2			
24									1			
25									2			
26												
27									1			
28				2					2			
29				3		1			2	2		
30									1	1		
31						1			1	2		
32				1		1			2			
33									1	1		
34					1	4			3	1		
35				1		1			1			
36			1	1		1				2		
37			1			1			1	1		
38				3	2	2			1	1		
39			1	1								
40				3	2	3				1		
41				1		1			1			
42					1				1	1		
43				1	1	2				1		
44				4	1	2				1		
45						2						
46			1		2	1						
47									1			
48			1		1					1		
49										1		
50												
51					1					1		
52			1	1				1				
53								1		1		1
54						1						
55										1		
56												
57		1						1				
58										1		
59		2										1
60												2
61												
62		2										1
63												1
64		1										1
65		1										1
66		2										1
67												3
68		1										1
69												4
70		1								1		
71	1	3										
72		1										2
73	1	1										
74		2										3
75		1										
76		2										1
77		3										1
78		1										
79		1										
80		1										
81												
82		1										
83		1										
84												
85												2
86												1
87												
88		1										
89		1										
90		1										
91		1										
92												
93												1
94												
95												
96		1										
97												
98												
99												
100												
101												
102												
103												
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114												
115												
116												
117												
118												
119												
120												
121												
122												
123												
124												

June 2005, Trip 1
Tow 42 Experimental

7/1 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20										
21										
22									1	
23										
24										
25										
26										
27										
28				1					1	1
29			1						1	1
30			1						1	
31									1	
32				1						
33			1						1	
34				2	1					
35				3					1	
36				1		1				
37			1	1					1	
38			1							
39			3	2	1	2				
40						3				
41		1	1	1	1	1			1	
42			1			1				1
43	1		1	1						
44				1						
45			1	2						
46		2	1							
47		1		1						
48		1			1					1
49										
50		1								
51		2		1			1			
52	1	2						1		
53		5						2		
54	1	4		1						
55		5		1				3		
56		5						3		
57	1	1						1		
58	1	3								1
59	1	5						1		
60	1	5								
61	2	4								
62		4								
63		1						1		
64										
65	2	3								1
66		3								
67		2								
68	1	3								
69		1								1
70		1								
71		1								1
72		1								
73		1								
74		1								
75										
76		1								
77										
78		2								
79	1	1								
80										
81		2								
82		1								
83										
84										
85										
86										
87										1
88										
89	1									
90		1								
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1
Tow 43 Experimental

7/1 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20			1						1	
21										
22			2	1					1	
23			1						2	
24									2	
25			1						2	1
26			3			1			4	1
27			1						3	
28										1
29				1					1	
30			3						1	1
31			4						2	
32			3	2					4	
33			2	2					1	1
34			1	1					1	2
35			4						2	
36			2	1						
37			1							1
38			2	3		1				
39			1			2			1	
40			2	2						
41			1	1	1					2
42			4	1						
43			7							
44			6	3		1				
45					1		1			
46			4							1
47			1				1	2		1
48								2		
49		1								1
50	1	1	1							
51								1		
52		2								
53		1						2		
54		3					1	1	1	
55	1	2						1		
56	1									
57	1							1		
58	1									
59		4								
60										
61		1								
62		1						1		
63	2							1		
64		3								
65										
66	1									
67		1								
68										
69		1								
70		2								
71		1								
72										
73										
74										
75		1								
76										
77										
78										
79										
80		1								
81										
82										
83										
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108		1								
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1
Tow 44 Experimental

7/6 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20										
21									1	
22				1						
23									1	1
24			1						1	1
25									1	
26								1	1	
27										
28			2	1						
29										
30				4				1		
31				2				1		
32				3						
33			2	2	1				1	
34			1	1		2		1		1
35			2	2		1				1
36			2	1						1
37			3	2	1	1				1
38			3	1		2			1	
39						1				
40				1		2				
41			1	2	1			1	1	
42			3	3						
43				1	1				1	
44			3	1	1				1	
45			3							
46			3	1	1					
47				1	1					
48			1	1	1			1		1
49				1						
50				1						1
51										
52		1					1	1		
53	1	1						1		1
54		1						1		2
55		1								
56		1								1
57	1	2								
58	4	2						1		
59	2	1								
60		2								
61		1								
62		1								
63		2								
64		2								
65	1	1								
66		2								
67	1									
68	1	2								
69	1	2								
70										
71		2								
72	1	1								
73										
74										
75										
76		1								
77		1								
78		2								
79		1								
80										
81										
82	1									
83		2								
84		2								
85										
86		1								
87										
88		2								
89		2								
90		3								
91										
92		2								
93		1								
94										
95		1								
96		1								
97		1								
98		2								
99										
100										
101										
102		1								
103		1								
104	1	2								
105										
106		2								
107	1	1								
108										
109										
110										
111										
112		1								
113										
114										
115		1								
116										
117		1								
118										
119										
120										
121										
122		2								
123										
124										

June 2005, Trip 1
Tow 45 Experimental

7/6 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										1
19										
20									1	
21										1
22				1						
23			1	1					1	1
24			2	1					1	
25									2	
26									3	
27			1	1					2	
28			4	2					2	
29			2	3					2	
30			4	1	1				2	
31			4	1						2
32			2	2	1				1	
33			2	1		1			2	
34			7	1	1					
35			4	2	2				1	1
36			3	4	1					
37			4	2						
38			2	1	1	1				2
39			3	1						
40			2	4	1	1				
41				1			1	1		4
42			3		1	1		1		2
43				3	2			1	1	
44			1	3				1		1
45			1							
46										
47			1							
48								2		1
49		1	1					2		
50	1		1	1						1
51		1								
52										
53							1			
54										
55										
56		4								
57	1									
58		1								
59		1								1
60		3						1		
61	1									
62		1								1
63										1
64										
65										1
66										
67										1
68		1								
69		2								
70		1								
71		3								
72		3								
73										1
74										
75										
76										
77										
78										
79		1								
80		1								
81										
82		1								
83										
84										
85										
86										
87										
88										
89										
90										
91		1								
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104		1								
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116		1								
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1

Tow 46 Experimental

7/6 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19									2	
20										
21				1					1	
22									2	
23			1							1
24			1						2	
25			1	1						
26			2						2	1
27									1	1
28			1						3	
29			1						3	
30			2		2				3	1
31				1						1
32									1	2
33									1	
34			1	1						
35			1	2	1				1	2
36			2		1					
37			1	1						
38			3							
39			1							
40			1	2	1	1				
41				2		3				2
42			1		1	1				1
43				2	1	1				
44						1				
45			1	2		1				
46					1					
47					1					
48				1					1	
49								1		
50				1						
51	1				1		1			1
52		1			1			1		
53		1								1
54										
55								1		1
56										
57										
58	1	1								
59	1	1						1		
60	2	2								
61	1	3								
62	1	3								
63										
64		1								
65										1
66		1								
67		1								
68										
69		1								
70	1									
71										
72										
73		1								1
74										
75		1								
76										
77		1								
78										
79										
80										
81		1								
82		1								
83										
84										
85										
86										
87										
88										
89										
90										
91										
92		1								
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1

Tow 47 Experimental

7/6 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20										
21									1	
22			1						2	
23				2					2	
24									1	
25				1					2	
26									2	
27			1						1	
28			2	1						
29			1	1					3	1
30			5	1					1	
31			2			1			1	
32			1	2		2			2	
33			1	2					1	1
34					1					
35			3	1		1			2	
36			2	1	2					
37			2		3				2	2
38			1	1					2	
39			1	2		1				1
40			4	1						
41				3	1					2
42			3	1	2	1				
43			2	1						
44				1	1				1	
45			1			1				2
46			1							2
47			1	1						
48			2		1					1
49	1					1				
50				1						
51				1						
52										
53										1
54										1
55	1	2						1		1
56		1								
57										
58	1									
59	1	1								
60		1								
61		3								
62		1								
63										
64										
65	1	1								
66										
67		1								
68	2	1								
69	1									
70		1								
71		2								
72										
73										
74										
75	1									1
76	1	1								
77		1								
78										
79		2								
80		1								
81		1								
82										
83										
84										
85										
86		1								
87										
88		1								
89		1								
90										
91										
92	1									
93		1								
94										
95										
96										
97										
98										
99										
100										
101										
102										
103		1								
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117		1								
118										
119										
120										
121	1									
122										
123										
124										

June 2005, Trip 1
Tow 48 Experimental

7/6 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20										
21										
22				1					2	
23										
24			1						1	
25			1						2	
26										1
27				3					1	
28				1						
29									2	
30			1	1					1	
31				1					1	
32			3	3					1	
33			2	4					1	2
34			2	2						
35			1	4	1	1				
36			1	1						
37				2						
38			2			1				
39			3	1	1	1			1	
40			3	1	1	2				
41			1	1						
42			1	2	1	1				
43			1	1	1	1		1		1
44										1
45					1	1				1
46						1				
47			1							
48						1		1		1
49						1				1
50										
51		1								1
52							1			
53										
54										
55										
56										
57										
58		1								
59		1								
60		1							1	
61								1		
62		2								
63		1								1
64										
65										
66										
67										
68										
69		1								
70		1								
71		1								
72										
73										
74		1								
75		1								
76										1
77										
78		2								
79										
80		1								
81	1									
82										
83										
84							1			
85										
86		1								
87										
88										
89										
90										
91		1								
92										
93										
94										
95		2								
96										
97										
98										
99		1								
100										
101										
102										
103		1								
104										
105										
106										
107										
108										
109										
110										
111										
112		1								
113		1								
114										
115										
116										
117										
118		2								
119										
120										
121										
122										
123										
124		1								

June 2005, Trip 1
Tow 49 Experimental

7/6 L (cm)	Upper Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16									
17									
18									
19								1	
20								1	
21								2	
22								1	
23								1	
24			1					2	
25		1	1					1	
26								5	
27			1		1			6	1
28								1	
29		3						2	
30		1	1	1				2	
31		3	2					2	1
32		3	2					2	
33		1	3		3				
34		3	2					4	
35		1	3		1			1	
36		3						1	1
37		3	3					2	
38		2	2	1					
39		2	3					1	
40		4	4						
41		3		1	1				
42		3		1					
43		1	1						
44					1			1	
45						1			
46		2	1	2					
47						1			
48						1			
49									
50			1	1					
51			2						
52									1
53									2
54		1					1		
55									
56									
57							1		
58	6								
59	1								
60									
61	1								
62	2								
63	2								
64							1		1
65									
66									
67									
68	2								
69									
70	1								
71	1								
72									
73									
74									
75									
76									
77									
78									
79									
80	1								
81									
82	2								
83	1								
84									
85									
86	1								
87	1								
88	1								
89									
90									
91									
92									
93	1								
94									
95	1								
96									
97									
98									
99									
100	1								
101									
102									
103	1								
104									
105									
106									
107	1								
108									
109									
110									
111									
112									
113									
114									
115									
116									
117									
118									
119									
120									
121									
122	1								
123									
124									

June 2005, Trip 1

Tow 50 Experimental

7/7 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk	Upper PLK	Lower PLK
16												
17												
18									1			
19									1			
20												
21									2			
22									1			
23			1									
24												
25			1						2			
26			1						2			
27			1						3			
28									1	1		
29			2	2					1			
30				2						2		
31									1			
32			1	1						1		
33						1						
34				2								
35			3	2								
36			1	2		1						
37			2	3	1					1		
38			2	1	1					1		
39			1	1	1					2		
40			2	1	1	1						
41				1		2				1		
42			2			1						
43												
44												
45			1	1								
46									1	1		
47				1								
48								1				
49												
50												
51												
52			1									
53												
54		2						1				
55												
56		3										
57												
58		1						1				
59		3										
60		1								1		
61		1										
62	1											
63		1										
64		2										
65		1										
66		1										
67	1	1						1				
68		1										
69										1		
70	1	2										
71	1	3										
72		1										1
73												
74		2										
75		1										
76		1								1		
77		1										
78		1										
79		2										
80		1										
81		1										
82												
83		1										
84		1										
85												
86												
87												
88		2										
89		1										
90												
91												
92		1										
93												
94		1										
95												
96										1		
97		1										
98												
99												
100		2										
101												
102												
103		1										
104												
105												
106												
107												
108												
109												
110												
111												
112												
113												
114		1										
115												
116		1										
117												
118												
119												
120												
121												
122												
123												
124												

June 2005, Trip 1

Tow 51 Experimental

7/7 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20										
21										
22										
23				1						
24										
25				1					1	
26										
27				1						
28				1						
29				2						
30										
31				1						
32			1							
33				1						1
34				1						
35						1				
36				2						
37				4						
38										
39			1	1						
40					1					
41			1			1				
42			2	1		1				
43			2	1	1	1				
44				1						
45										
46			1							
47			1					1		
48			1		1			1		
49										
50										
51	1							1		1
52								1		
53										
54	1	1								
55			1							
56										
57										
58										
59		2						1		
60		1								
61		2								
62	1	1								
63		2								
64	1	2								1
65										
66	1	1								
67										
68										1
69										
70										
71										
72	2									
73										
74										
75		1								
76										
77										
78		1								
79		1								
80										
81		2								
82										
83										
84		1								
85										
86										
87										
88										
89		2								
90		1								
91		1								
92		1								
93										
94										
95										
96		1								
97		2								
98		1								
99										
100		2								
101		2								
102		1								
103										
104										
105										
106										
107										
108										
109										
110		1								
111										
112										
113										
114										
115										
116										
117		1								
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1
Tow 52 Experimental

7/7 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17									1	
18									1	
19										
20									1	
21									3	
22										1
23				1					7	2
24									3	1
25									6	
26			1	1					3	
27									7	
28			1						3	
29			2	2					2	2
30			3	2		1			5	1
31			1	3					1	1
32			3						3	
33				1		1			1	1
34			1	1					2	
35			4	3	2				2	
36			3	2					2	1
37			2	5		2				
38			1	1		1				
39			2	5		1				2
40			2	4		1				1
41			6	6		2			1	
42			1	1	1	2			3	
43			1						1	2
44			1			1				
45			3							1
46			1	1						
47			2		3					
48				1						
49				2						1
50			1	2						
51		1								1
52										
53		1								
54										1
55		2								
56			1					1		
57		1								
58										1
59		1								
60										1
61		1								
62										
63										
64		1								1
65	1									
66										
67	1									
68										
69										1
70		1								
71										1
72										
73										
74										
75										
76										
77										
78										
79										
80										
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110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1
Tow 53 Experimental

7/7 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16									1	
17										
18										
19										
20									1	
21									1	1
22									1	1
23				1					2	1
24									5	
25									4	
26									3	
27			1						3	1
28			1						6	1
29				1					1	
30						1			2	1
31			1	1					1	1
32									1	1
33			1	3					2	
34			2	2					1	
35			1	3		1				
36			2							
37			4	3						
38			3	2						
39			4	3						2
40			3	4						1
41			4	1		1				
42			3	3	1	1			1	
43			1	1	2					1
44				1						
45			2	1						
46				1						
47										1
48				1						
49										
50				1						
51										1
52										
53		1								1
54	1									
55										
56	1									
57										1
58										
59										
60		1								
61										
62										
63										
64										
65										
66										
67										
68										
69										
70										
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72										
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110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1
Tow 54 Experimental

7/7 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18				2						
19										
20				1						
21									1	
22			1						1	
23										1
24			2						3	1
25			1	1					2	2
26									5	1
27			1	1					3	1
28			1						2	1
29			4	3					1	
30			2	2					2	1
31			1	1					1	2
32			3	2						
33			2	5		2			2	1
34			2	3					4	
35			3	1		1				
36				1					1	
37				2		2				
38			1	4		1				
39				3		2				1
40			1	3						
41			1	1	1					
42			1							
43				1	1					
44				1						
45			1	1	2	2		1		
46					1	1				1
47			1	1					1	
48			1	1						
49	1	1		1						
50										
51	2	1								
52		1		1	1		1			
53										
54	2	1					1	1		
55										
56	1	1								1
57		1						1		
58										
59		2								
60		1								
61		2						1		1
62		1								
63										
64	2									
65		1								
66										
67		1								
68									1	
69										
70										
71										
72		1								
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										1
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1
Tow 55 Experimental

7/8 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20										
21										
22									1	
23									1	
24				1					2	
25									3	2
26			1	1						
27			1						3	
28									3	
29				2					1	
30			1	3						
31				3					2	
32			2	4						1
33			1	6	1	2			1	1
34			1	2		3			1	3
35			2	4					1	1
36			1	7		2				1
37			1	1		2			1	1
38			2			4			1	
39			1	5						
40			1	3						
41				1		2			1	
42			2	2		2			1	3
43			2	2	1	1				2
44				1	1	1				
45			2							1
46			1							
47			1							
48								1		
49		1		1						
50				3			1			
51		1								
52										
53	1			1			1			
54		1		1						
55		1						2		
56										
57								1		
58		2								
59		1								
60										
61		1								
62										
63	1									1
64		2								
65										
66	1									
67										
68										
69		1								
70										
71										
72										
73		1								
74										
75										
76		1								
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87										
88										
89		1								
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
101										
102										
103										
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105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117										
118										
119										
120										
121										
122										
123										
124										

June 2005, Trip 1
Tow 56 Experimental

7/8 L (cm)	Upper Cod	Lower Cod	Upper Dab	Lower Dab	Upper GS	Lower GS	Upper HDK	Lower HDK	Upper Monk	Lower Monk
16										
17										
18				1						
19									1	
20										
21									1	
22										
23										
24										
25										
26			1	1					1	
27									2	
28										
29				1						
30				1					1	
31									2	
32			1							
33										
34			2		1				1	1
35			1		1	1				
36					1				1	
37			2			1			1	
38			2						1	
39					1					
40			2	1						
41			1							
42			1	2						
43			2	2	1					
44			2							
45					1					
46					1					
47						1				
48								1		
49	1							1		
50	1							1		1
51			1							
52								1		
53										
54								1		
55										
56		1				1				
57										
58	1									
59										1
60	1									
61										2
62	1									
63										
64										
65										
66										1
67										
68										
69										
70										1
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
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85										
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88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
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100										
101										
102										
103										
104										
105										
106										
107										
108										
109										
110										
111										
112										
113										
114										
115										
116										
117		1								
118										
119	1	1								
120										
121										
122										
123		1								
124										

June 2005, Trip 1
Tow 57 Experimental

7/8 L (cm)	Upper Cod	Lower Cod	Lower Dab	Upper Dab	Upper GS	Lower GS	Lower HDK	Upper HDK	Upper Monk	Lower Monk
16										
17										
18										
19										
20									2	
21				1					1	
22										
23				1					2	
24									7	1
25									2	
26									1	
27				2					4	
28			1	1					3	
29			1						4	1
30			1	1					1	1
31			2	1		1				
32									1	
33			1	2	1				4	1
34				2						
35			2			2			1	
36			1	1		1			3	
37			4	1		1			2	
38			1	1	1				1	1
39				3	1					
40				1				1	1	
41			3	1						
42						1				
43				3						
44			1	1						
45					1					
46			1	1						
47										
48	1		1							1
49		1	1		1					
50				2						
51			1							
52										
53										
54										1
55		1								
56		1								
57										
58		1								
59		1								
60										
61										1
62										
63		1								
64		1								
65										
66										
67										1
68										
69										
70										1
71										1
72										
73										
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84										
85										
86										
87		1								
88										
89										
90										
91										
92										
93										
94										
95										
96										
97										
98										
99										
100										
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110										
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114										
115										
116										
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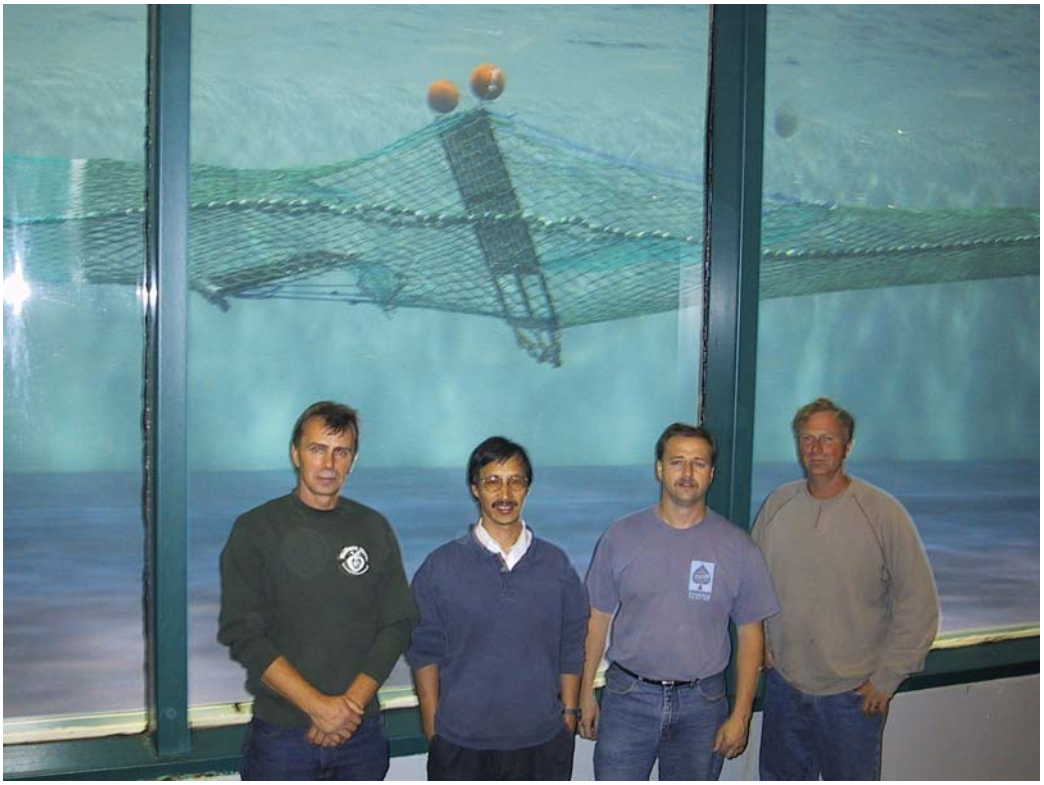
124										

Appendix 2

Additional Photographs

UNH