Resource Guide for the Population Dynamics Branch

Created by Michele L. Traver
updated January 2014

Table of Contents

1. General Information…….5

2. Database Information…….15

3. Important Branches to Pop Dy ……..18

4. PopDy Work……19

5. PC Software/Programs……...23

6. Frequently Asked Questions (FAQs)…….34

7. Acknowledgements……34

Appendices (see additional files)

v6 (June 2011):

*Staffing changes made to switchboard, Safety, SAW/SARC/TRAC, DMS and Population Biology.

*Notes on the temperature and refrigerators of PopDy have been added.

*Information added regarding our network servers.

*Additional information on the PopDy Group calendar.

*The Extension_Room_Location.xls has been updated.

*Travel information has been added.

*Mid and end year review information has been added.

*Additional information regarding timesheets and work schedules.

*Information on parking and lab closures were added.

*Information on required training courses.

v7 (January 2012):

*Information on Google Mail added.

*Additional information regarding parking decals and ID cards was added.

*Information regarding the AOP was added.

*Files have been updated with the most recent information (offices and extensions and species responsibility in particular).

*Admin privileges were added.

*Updated instructions for SAGA 5.4.1.

*New document and information was added regarding the parking policy for meetings held here at the lab.

v8 (December 2012)

*Link to the New Employee Checklist was added.

*Information on Google Calendars have been added and updated.

*Information on reserving government vehicles added.

*Updated information regarding branch chiefs.

*Files have been updated with the most recent information (offices and extensions and species responsibility in particular).

*Added Biostat 7.02 files (input and SAS files).

*New Inclement Weather Policy added.

*CAC cards information was added.

v9 (August 2013)

*Information on how to access voicemail was added

*Updated contact information in the absence of Joe Finnegan

*Information on the new pin pad outside DMS was added

*Updated information on Google Calendar

*Updated information on the latest versions of SAGA (6.9) and Biostat (7.03)

V10 (January 2014)

*Information on seeing/being added to the PopDy Google calendar

*Biosampling Summary webpage instructions were added.

*Updated some of the information regarding R.

*Linux commands were added.

*Where to find general canvas data was added.

*Google vs Oracle calendars were updated.

*Labels were added.

PopDy Resource Guide

Welcome to the Populations Dynamics Branch! Over the years, there has been an accumulation of resources and tools we use for computation and analyses. Consequently, a lot of details exist within the various programs, models, and databases we use that may not be obvious to new users. This resource guide has been created to help navigate and orient you through some of these complex tools and resources, as well as the everyday activities here in PopDy. It will continuously be updated, so please be sure to check back periodically for the most recent information. Also, please note that this file, as well as the other files referenced, is located in *\net\home0\pdy\pub\Resource_info* directory.

1. General Information

Basic Information

http://localonly.wh.whoi.edu/omi/Person/Employee_Orientation/
This website gives a great deal of general information about our laboratory.

By now, if you have not met Colleen Close (x2373) and Betty Holmes (x2344), you need to introduce yourself. They are the glue that holds our branch together. They do all sorts of work for the branch. Colleen does all of our travel requests and most, if not all, of the paperwork. Betty does our timesheets (aka Time and Attendance, T&A), makes GIS maps, and orders the things we need. They both contribute so much to the branch. They really do hold us together.

Switchboard

Lauri Kinney (x2000) is our main switchboard operator, located in the main building. She is in charge of the mailroom. See her if you need to FedEx a package. She is also the person to see if there a visitor. If someone should come to visit you, please make sure that they sign in with her and get both a visitor badge and parking pass.

Maintenance

The Maintenance Shop (x2214) is located below us, in the Aquarium building. David Kosewski (Ski) and Gary Pearson are our maintenance staff. If you see something that needs to be fixed, you can call them or send them an email (nefsc.wh.shop@noaa.gov) with the details of the problem. Also, if you are having a planned meeting and will be expecting visitors, contact the Shop to get a temporary door code for your guests (this is for professional purposes only.)
http://localonly.wh.whoi.edu/omi/Person/checklist.html

Safety

Joseph Finnegan (x2183) is our Safety and Environmental Compliance officer. His office is located in the main building. He is in charge of making sure that we meet all safety regulations, including ID cards, hazardous materials, fire drills, etc. Please see him to get your official NEFSC parking decal. It was recently changed (December 2010). You will need to see him to schedule a time to get your ID (called a Common Access Card {CAC}) at Otis Air Force Base as well. You will set up your pin number while you

are there. This is important because you will need this number (it's like a password). We have officially moved over to the use of CAC cards. This is your ID that is used to access your computer and all our buildings. You will not be able to access your computer without the card and your pin number. More information on CAC cards can be found at: http://localonly.wh.whoi.edu/CAC/CACFAQ.html. However, if you are a contractor, please see Colleen Close (x2373) for your ID card. Please be sure your ID card does not expire. You will also need to see Joe to get your fingerprints done. It is required for all employees (both federal and contractors) to have fingerprints on file.

IMPORTANT NOTE (JULY 2013): Joe Finnegan is away for a year. Please see notes below on who to contact in his absence.

If you have any questions or concerns about
Safety Issues
Environmental Compliance issues
Chemical Purchases
Defensive Driver Training
All Safety Training
Hurricane Plans
Mishap Reports
Monthly Supervisor Safety Inspection Reports
Contact Linda Arlen at: 732-782-3093 or email Linda.Arlen@noaa.gov

If you have any questions or concerns about
Security Issues
Parking Stickers
Contact Jack Emberg at: 508-495-2219 or email Jack.Emberg@noaa.gov

If you have any questions or concerns about
Contractor ID Card Trusted Agent
Contact Coleen Close at: 508-495-2373 or email Coleen.Close@noaa.gov

If you have any questions or concerns about
CAC Card Pin Reset
Contact Joan Palmer at: 508-495-2247 or email Joan.Palmer@noaa.gov

If you have any questions or concerns about
Phone Repair Issues
CAC Input for Door Access
Parking Problems
Contact Ski (David Kosewski) at: 508-495-2019 or email David.Kosewski@noaa.gov

If you have any questions or concerns about Fingerprinting
Contact Kristy Owen at: 508-495-2098 or email Kristy.Owen@noaa.gov

Fire Drills
Should there be a fire or a fire drill, there are two exits. You can exit the doors by DMS (near Paul Rago's office) or the ones at the end of the hallway by the bathrooms. Regardless of which door you exit, please meet over by the cottage parking lot. Dr. Rago will then take attendance to ensure that we all exited out of the building safely. Please close your windows and doors and turn off your computer (if time allows) before leaving your office.

Supplies
We have a small office supply closet. It's located near the coffee maker. It has some pencils, pens, markers, etc. However, if you need more than what is there, we have a larger supply closet located on the second floor in the main building. It is always worth checking with Betty Holmes (x2344) as well. She can order certain things, like an UPS if you need one.

Food
We have two small refrigerators under the counter (below the coffee maker and microwave) and one larger one. These are available for our branch to use as needed. We ask that no one store biological samples in there and please don't allow any "experiments" to grow. Every few months, they need to be defrosted and cleaned out. Everyone has to take their turn in cleaning them as almost everyone uses them at one time or another. Please take initiative with this, as it is NOT part of Colleen or Betty's work duties. We also have a toaster oven and hot water maker to be used by members of our branch. Please be careful and keep them clean as things like cheese can burn and make a mess. Again, this is our responsibility to clean, no one else's.

There are vending machines located in the stairwell (facing the water) in DMS. They do not carry sandwiches, just snack foods and soda. There is now a pin pad to get back into DMS from the stairwell where the vending machines are. The code is 1359#. There are similar ones in the main building near the survey branch, but without the key code.

Unfortunately, we do not have a cafeteria or lunch room onsite. Most of us eat at our desks or head to one of the local places for lunch. SWOPE is part of MBL and is fairly inexpensive. They are a cafeteria style place with sandwiches, a salad bar and usually some hot soup and entrée options. Pie in the Sky is up the street and they offer pastries, soup and sandwich options. The Captain Kidd and Fish Monger are two sit-down restaurants located up the street that are both really good.

Temperature
During the winter, it tends to be pretty toasty in PopDy. In the summer, it tends to get really chilly. Your best bet is to dress in layers and bring extra clothes for your lunchtime or after-work activities. It's no fun to be extremely hot or cold. Please do not try to adjust the thermostat. It is set for a specific temperature, so please do not play with it.

Copy and Fax Machines
Our copy machine is located near the stairs to DMS (outside the PopDy conference room). It does faxing, scanning and copying. Should have any questions, please see Colleen Close (x2373) or Betty Holmes (x2344). This can also be used to scan documents. In order to do that, you need to hit '*Scan*' on the machine. It will be then be saved to a folder on the server.

Our fax machine is located on the opposite wall of the coffee machine (outside room A225). You can also fax from our copy machine, which is located outside of the PopDy conference room. Our fax number is 508-495-2393. In order to send a fax, you have to dial 8 before the area code. It's very easy to use, but if you have any problems, please ask Colleen Close (x2373) or Betty Holmes (x2344). Our mailing address is 166 Water Street, Woods Hole, MA 02543. The main number is 508-495-2000. That will connect to the switchboard operator.

Conference Rooms
The Stephen H. Clark conference room (Aquarium conference room) is downstairs, by the main entrance to the aquarium. We hold most of our meetings there. If you need to schedule a meeting for that room, you need to reserve it. You can do that by going to the localonly page (http://localonly.wh.whoi.edu/) and clicking on '*Calendars*,' then click on '*Scheduling Calendars*.' Follow the instructions from there.

There is also a small conference room by the copy machine. This room only accommodates 8 people. It also blocks an office of two of our coworkers. If you are going to be in there, please close their door and close to the door to the rest of PopDy. Sound travels so it helps if the doors are closed to not disturb the rest of the branch. You can also reserve that space as above by clicking on '*PopDy Conference room*.' (Use the same instructions as above, click on '*Group Calendars*' under '*Scheduling Calenders*' and click on '*PopDy Conference Room Calendar*'.) Follow the instructions from there.

Voicemail
In setting up your voicemail, you dial 6959. Your starter password is your 7-digit office phone number. From there, you can change your password and set up your voicemail.

Phones
Should you have any issues with your phone, usually we contact Joseph Finnegan (x2183) but while he is away, contact Ski in Maintenance at x2019. He will write up a work order and take care of it.

LocalOnly page
http://localonly.wh.whoi.edu/
This page will be one of your very best friends. You should be able to find quite a bit of what you need here. It has security updates, timesheets, phone lists, online calendars, publications, and links to important sites, like the Fisheries Toolbox (NFT), Data Dictionary, and the Biological Sampling page (BSMDBS). It also gives updates to the latest security updates as well as upcoming events and general information.

Lab Closings

You can find a copy of our Inclement Weather Policy in the *\net\home0\pdy\pub\Resource_info* directory. It states: "On the first (and only the first) day of any weather event, we will follow decisions by the Falmouth Public School system. If the Falmouth Public School system is closed for the day, the Woods Hole laboratory will also be closed. If the Falmouth Public School system has a delayed opening, the Woods Hole Laboratory will announce a specific opening time (often but not always 10:00 am). If the Falmouth Public School system announces an early closing, the Laboratory leadership will announce a closing time.

Following the first day of a weather related closure, the Woods Hole Laboratory will make closure decisions independently of the Falmouth Public School system until the laboratory is reopened. This includes cases where multiple day closures are triggered by a single weather event or the area experiences multiple weather events over a short period of time. Laboratory staff should prepare for the prospect that the lab may be open when other facilities including school systems remain closed. "

IRIS

As an employee, you will also be asked to register for IRIS (http://www.useiris.com/), which is a communication system to get in touch with you should there be an emergency or closing. Be sure to include a home (or cell) phone number or alternate email address in the event of a lab closure where work phones and/or work email systems are inaccessible.

Parking/Vehicles

You can find a copy of our parking policy in the *\net\home0\pdy\pub\Resource_info* directory. We have a few parking lots on site. There is the parking lot near the Cottage (the little white house-like building opposite the aquarium). This is for NEFSC use only. Please only use the allotted spots. Patrons for the aquarium tend to use this lot, which causes problems due to the limited space. Please make sure that you have your NEFSC parking decal or you may be towed. You can get one by contacting Joseph Finnegan, our in-house Safety and Environmental Compliance Officer (x2183). While he is away, please see the list of appropriate people to contact on page 6 of this document.

The lot behind our building along the water has long parking columns. Unless you are going to sea, do not park in the designated research vessel parking columns. If you are parked along the pier, and one of the ships comes in, our port office will ask you to move your vehicle. Should you park in the long parking columns, please call or email the person you are blocking in to let them know how to contact you and what time you plan to leave. It is frustrating trying to find the person who parked behind you, especially if there is an emergency.

The lot that surrounds the main building is ours too. Again, should you block someone in, please let them know. Also, the lot behind our building and the lot that surrounds the main building are locked at night. We are getting gates that use your CAC card to access

the lots after hours. It will automatically close behind you. Always check though because in the case that it doesn't, you will need to report it to Maintenance.

Please give Lauri Kinney (x2000) all your updated vehicle information (make, model, color, license plate, etc.) to be put on our localonly page. She updates this list every month. Any vehicle that you drive consistently here needs to have a parking decal. We also keep everyone's vehicle information should it be needed.
http://localonly.wh.whoi.edu/NEFSC/vehicle/b.pl

There is a new policy implemented (February 2012) for parking during the meetings held here at the Woods Hole lab. This is strictly for meetings conducted in Woods Hole for more than *10 attendees from other locations.*

The Meeting Organizer must:
1. Notify the front desk within 5 calendar days of the meeting date. Include time, duration and dates of the meeting.
2. Supply a list of all attendees to the front desk.
3. Be responsible to insure all attendees have signed in at the front desk, have a visitors parking pass displayed on their vehicles, that the attendees are parked in the designated location and that all attendees sign out/return visitor parking passes to the front desk.
4. Cancellation- Notify the Front Desk immediately if cancelled or if the personnel is downsized to less than 10 attendees.

The front desk will:
1. Notify the Maintenance and Safety personnel of the scheduled meeting.
2. Issue visitor parking passes as attendees sign in.

Maintenance and Safety personnel will:
1. Reserve and mark off a minimum of 10 parking spaces behind the Aquarium Building.
2. At the end of the meeting, remove the reserved markings.

The above information is also in the file called *MeetPark.docx* located in *\net\home0\pdy\pub\Resource_info*.

Group Calendars
http://localonly.wh.whoi.edu/NEFSC/groupcalendars.html
From the localonly page, click on 'Calendars' then click on 'Group Calendars.' If you click on the PopDy Group Calendar, it gives a calendar view of upcoming events and meetings pertaining to the branch. This is NOT to reserve the room. Since we switched over to Google for all our email and calendars, this tends not to get updated as frequently.

For our PopDy Google Calendar, everyone should have the ability to add/remove/edit calendar events as well as the email addresses of those who can use the calendar. In order to access our PopDy Google Calendar, see below.

To be part of the PopDy Google calendar, someone needs to invite you to the calendar. It can be a coworker or your supervisor. Whomever is doing the inviting needs to open the calendar in Google calendar, use down arrow to the right of the calendar name to select "share this calendar", and then add the person's email, and select "Make changes and manage sharing" so that you have full privileges.

When creating a new event for PopDy, make sure you add the event to the Pop Dy Group Calendar and not the calendar associated with your NOAA email address (which is most likely the default setting). You can access it from gmail with the following steps:
1. Open your calendars using the box of boxes on the top of the gmail screen (next to your email address/name).
2. On the left of the calendar screen, click the arrow to the left of "My calendars" to expand your list of calendars.
3. Click on "Pop Dy Group Calendar" to show the calendar
4. To create an event, either use the "Create" button to the left of the calendar screen, or click on the day of the event and a new window will pop up.

The PopDy Conference Room calendar is also listed. This is a calendar view of when the PopDy Conference room is reserved. You CAN reserve this room here. There are directions on the left side on how to login to reserve the space.

Email and Passwords

You need to see Edgar Kleindinst (x2280) or Dave Hiltz (x2218) in DMS to set up your email. Passwords have to be changed every 60 days. There is a link on the localonly page (under Security Corner). It gives full instructions on how to change your network and email passwords. You will get a prompt when it's time to change your passwords so no need to count to 60!
http://localonly.wh.whoi.edu/FDCC/monday.html

We have recently switched over to Google Mail (gmail). There are instructions on our localonly page and additional trainings on gmail that you can view. It is helpful to keep this up to date for all of our co-workers who depend on us. Please keep this current so if there are important meetings that you need to be present for, they can be scheduled by looking at this calendar to see if you are available.

Telework

Our office is very flexible with hours. If your supervisor and Dr. Rago (x2341) give you permission, you need to fill out the telework agreement and pass it into Colleen Close (x2373) as soon as possible. You can access all telework information at http://localonly.wh.whoi.edu/omi/telework/. Towards the bottom of that page, there are links where you can access the application form and telework security clause, both of which you need to fill out and sign before you can begin teleworking. You will also need to fill out an emergency contact form. We need this information on file should there be an emergency. You can see Colleen Close (x2373) to get one.

Please fill out your Google Calendar. To see it, click on the little box of boxes next to your name in the email screen. Then click on Calendar. This will display your calendar. There is a red button that says *"Create"*. Click on that to start putting important dates into your calendar. Type what kind of event if is in the highlighted *"Untitled Event"* box. (This is what shows up when you look at your calendar.) Put in the times. If you click on "All Day," it will not show up as "busy" if a co-worker is trying to see if you are available. If you are teleworking or taking time off, it would be helpful for you to put a time so that way, people will see that you are unavailable. You may add in whatever details you would like to, then click on *"Save"*. If you are repeating events, you can click *"Repeat"* and it will give you a window in which you can choose which days, when it ends, etc.

If you have a regularly scheduled telework day, please make sure your timesheets are marked properly. For an irregular telework day, please call the office to let them know you will not be in. For all telework days (scheduled or not), please send an email to Dr. Rago (x2341), Colleen Close (x2372), Betty Holmes (x2344), and your supervisor to let them know that you are indeed teleworking and a few sentences what you will be working on while at home. Should you receive a call or email from work, please be responsive. We all depend on each other and need to be accessible, especially when there are abundant deadlines.

Library

http://nova.wh.whoi.edu/elib/index.html

Our library is located at the bottom of the stairs in DMS. Please see Jackie Riley (x2260), our resident librarian. She will put you into the system and show you where things are. She will also set you up with the MBL Library, a larger library located up the street. You will need to go over there to get a library card if you want to take advantage of such a great resource at your fingertips. You can also see what is available from our e-library (see link above).

Timesheets and Work Schedules

http://localonly.wh.whoi.edu/

Colleen Close (x2373) or Betty Holmes (x2344) usually send out an email to remind us when our timesheets and work schedules are due. You can access the forms from our localonly page. Click on *"Forms"*, then click on *2014_Timesheet.xls*. This will bring up an Excel spreadsheet where you can pull down which pay period sheet to fill out. You can either fill it out in Excel or hand-print it. Provide your signature at the bottom and give to your supervisor.

For your work schedule, click on '*Final_ProjectedSchedule_2014.pdf*.' This gives a few weeks in advance to schedule time off. Fill out, sign and give to your supervisor.

If you are taking annual or sick leave, you still have one more form to fill out. From the same screen, click on '*opm71leaveslip.pdf*.' This is what basically gives you permission to take the time. Fill out your name, NEFSC and the information pertaining to your leave

(annual leave or sick leave), the time requested and how many hours. Sign and date where is says Employee Signature and Date Signed. Give to your supervisor.

Colleen usually sends out an email at the end of every month asking for your calendar. This is an unofficial way of keeping track of everyone in our branch. It doesn't have to be set in stone, but is an easy way of checking to see if anyone is out to sea, at a meeting, or on leave.

Basically, there are five places where you have to provide your information, regardless of whether it is a meeting, annual leave, sea duty, etc.: timesheet, projected schedule, Google calendar, OPM leave slip, and Colleen's branch calendar.

Trainings

http://localonly.wh.whoi.edu/

There are a few training courses you are required to take once you start working here at the Center. You can access them through our localonly page. Click on '*Training,*' then '*Mandatory Training*' on the pull down menu. You have to take the No Fear, Security Awareness, and Safety trainings. You may have to take a Foreign Travel course if there is a chance of your traveling outside the US (http://learning.doc.gov/index.htm). If you think you may EVER have to drive a government vehicle, then you also have to take the Defensive Driving course. All these courses are online and can be taken right from your PC. Some of them take longer than others, but regardless, they all have to be taken. When they are complete, please make sure you forward the email certificate to Colleen Close (x2373) and print two copies: one for your records and one for Colleen to put in your file.

Travel

Travel request forms are located to the left of the mailboxes in PopDy. There are separate ones for domestic and foreign. Please fill out as much information as possible. If you have any questions, don't hesitate to ask Colleen Close (x2373). If possible, Colleen needs your travel request and information 90 days in advance. Domestic travel requires less time but is still a great deal of administrative paperwork for Colleen, so please fill out the appropriate forms and give to her ASAP.

ADTRAV - http://www.corporateservices.noaa.gov/~finance/ADTRAV.html

Travel Vouchers - Please sign all paper copies of travel vouchers in blue ink, it helps to differentiate between the original and the copies (not always so easy when they are in black). No reds, greens, purples.....blue only please.

Rezprofiler accounts - Please keep your rezprofiler accounts up to date (seat preferences, meal preferences, credit number and current EXPIRATION DATES).

JP Morgan Chase Travel Cards - please make a photo copy of the front/back and give to Colleen, unless you plan on making your own lodging reservations, then it isn't required.

While on travel, please keep all receipts and pass into Colleen immediately following your return.

Government Vehicles

http://localonly.wh.whoi.edu/NEFSC_GOV_Policy.pdf

This is the policy. You can reserve the vehicle online through our Local Only page (under the "*General*" tab) or by speaking with Lauri Kinney (x2000) at the front desk. Click on *"Reserve Government Vehicle"*. A popup window will ask for your username and password. Your username is the first letter of your first name and your last name (ex: mtraver). Then, you will come to a page where there are buttons for *"Availability and Reservations," "Make a Reservation," Edit/Cancel Existing Reservations," "Additional Information," "Vehicle Training," "Logout"*. This is pretty self explanatory. The gas card is usually attached to the key or in the glove compartment. Please look in there for further instructions on gassing up. You cannot drive a government vehicle if you have not completed the Defensive Driving course. See Trainings section above for additional information.

Reviews

We have both mid-year and end-year reviews. This is where you make a list of your accomplishments over the course of the year (or half year) and meet with your supervisor to go over your performance plan. This is the time to make changes to your performance plan, go over any concerns or questions and basically talk with your supervisor about your accomplishments. Make sure you prepare a bulleted summary of your accomplishments and send it to your supervisor prior to the reviews.

WebEx

http://localonly.wh.whoi.edu/webex.html

Follow the instructions on this webpage. It gives specific directions that are easy to follow. Also, make sure you see Edgar Kleindinst (x2280) or John Correnti (xx2328) for a quick training on how to use the Stephen Clark AV equipment. They need a few days notice to make sure someone can be there and it only takes about 15 minutes or so. Please read this first so you are familiar when they show you.

http://localonly.wh.whoi.edu/Clark/

Admin Privileges

In order to download any programs or models, you must get admin privileges from Dave Hiltz (x2218), John Correnti (xx2328), or Edgar Kleindinst (x2280). You can simply email or call them with your request and they will grant them to you. You usually have between 60-120 minutes to download what you requested.

2. Database Information

http://localonly.wh.whoi.edu/network/who.html
This will give you the "who's who" in Data Management System Branch and who can help with what database.

Servers

We continue to have sole and nova as our database servers. You can login to Jupiter or Neptune (linux boxes) to run your SAS or R jobs. Either box is fine, as both are very fast with 24+gigs of RAM each and are about the same for speed. To move from one server to another, simply type its name at the command line.

Oracle

There have been some recent changes in DMS, but to get access to Oracle, you can see Dave Hiltz (x2218) or Jon O'Neil (x2207). They can set up your Oracle account password and are capable of giving you permissions for the various databases you need access to. They can also help you set up SQL Developer, a GUI based tool where you can see the data within the tables and views of the various databases. It works very similar to Tora and TOAD, but it is more user-friendly.

Data Dictionary

This is a tool that gives the table and variable names and descriptions for all of our databases found on the local only website: http://nova.wh.whoi.edu/datadict/. It also gives details about the tables, such as column names and precision. Click on '*Reports*' in the left column, and then click on '*Elements Report*' on the right. From here, you can choose the database that you are interested in, as well as whether you want the columns only or the full tables. You can also get a description of each table by clicking on '*Include Table Description*' if you'd like a brief synopsis of each table.

Databases and Tables/Views

You need to speak with Dave Hiltz (x2218) or Jon O'Neil (x2207) in DMS. They will give you permissions to whatever databases you need access to. You can find this information on the Data Dictionary page, but here is a short list of where the most commonly used databases and some key tables are found.

BSMDBS (Biological Sample Monitoring): sole
- psregion
- samparea

CFDBS (Commercial Fisheries): sole
- cfage*yyyy*aa (1994-2006 allocation age data)
- cflen*yyyy*aa (1994-2006 allocation length data)
- cfdets*yyyy*aa (1994-2006 allocation detail species)
- cfdett*yyyy*aa (1994-2006 allocation detail trip)
- cfders*yyyy* (2004+ detail species)
- cfspp (species support table)
- woage*yy* (1961, 1965-1993 age data)

wolen*yy* (1969-1993 length data)
wodets*yy* (1982-1993 weighout species detail)
wodett*yy* (1982-1993 weighout trip detail)
wolands*yy* (1964-1981 weighout species landings)
wolandt*yy* (1964-1981 weighout trip landings)
gencanvas (general canvas data available by year)

MRDBS (Mark Recapture): nova
mrbycatch (bycatch information)
mrcontacts (contact information for persons reporting releases or recaptures)
mrevent_animal (animal information recorded for a release or recapture event)
mrhaul (haul or tow information)
mrhold_recapture (recorded information for each animal recaptured)
mrhold_tag (tag related information for each animal tagged and released)
mrrecaptures (recorded information for each animal recaptured)
mrspecies (species information)
mrtags (tag related information for each animal tagged and released)

OBDBS (Observer): nova
obage (age data)
obgear (gear and gear codes)
obgearcond (gear condition support table)
obhau (haul data)
obhauspp (combined haul and species data)
oblen (length data)
obspp (catch and discard data by species)

SVDBS (Survey): sole
mstr_cruise (snapshot joining two other tables but has the common fields used)
svdbs_cruises (cruise info)
svmstrata (historical support table with stratum codes)
union_fscs_svbio (all biological data—individual fish and invert data)
union_fscs_svcat (all catch data—number and weight)
union_fscs_svlen (all length data—number and length)
union_fscs_svsta (all station data)

VTR (Vessel Tracking and Reporting): sole
veslog*yyyy*g (1994+ vessel log gear data)
veslog*yyyy*s (1994+ vessel log species data)
veslogyyyyt (1994+ vessel log trip data)
vessels (materialized view of Regional Office table vtr.vessels)
vlgear (materialized view of Regional Office table vtr.vlgear)
vlspptbl (vessel log species table)

NEAMAP (Northeast Area Monitoring and Assessment Program)
http://www.vims.edu/research/departments/fisheries/programs/multispecies_fisheries_research/data_products/neamap_reports/index.php
This is created by the Virginia Institute of Marine Science and The College of William and Mary. It is a collection and analyses of data that supports single and multi-species stock assessments in our area. These are reports and unfortunately, we don't have access to the data they used. However, it may still be useful to your assessment and/or project.

3. Important Branches to PopDy

Data Management Systems (DMS)
http://localonly.wh.whoi.edu/network/who.html
You've heard so much about Edgar Kleindinst (x2280), and Dave Hiltz (x2218) already, it's time to give the rest of DMS some credit too. They are responsible for all our IT support and our databases. We would not have access to all the data without their help. If you have any questions about the databases or need permission to get into a database, they are the people to see.

DMS is located at the bottom of the stairs, off of PopDy, in the aquarium building. Joan Palmer (x2247) is the DMS Branch Chief. Her office is located in the main building. Please see the above link to get more information about who is in DMS.

Survey Branch
http://www.nefsc.noaa.gov/femad/ecosurvey/
This is another great resource. Our survey data is the main source of data we use for all our assessments. You cannot access the data itself through here (see databases for that), but you can get survey cruise results and ship information from this page. You can also get volunteer information, including the ship schedules and forms to fill out in order to go to sea.

Rob Johnston (x2061) is the Ecosystems Surveys Branch Chief. His office and the rest of the survey branch are over in the main building.

New England Fisheries Observer Program (NEFOP)
http://www.nefsc.noaa.gov/femad/fishsamp/
These folks collect data obtained during commercial fishing trips. The data includes fishing operations and effort, catch and discard information, vessel information, and biological data. Please see their website for manuals and reports.

Amy VanAtten (x2266) is the Fisheries Sampling Branch's Chief. The entire program is located in the Tech Park. Please see their website for directions on how to get there.

Age and Growth (aka The Cottage)
The Fishery Biology Program is actually part of the Population Biology Branch. The cottage ages up to 50,000 fish per year (26 stocks collected during research vessel surveys and 21 stocks from the commercial fishery). Without the work the cottage does, we would not have any age data to use in stock assessment analyses or in population dynamics models.

Eric Robillard (x2286) is our new fishery biology program chief. His office is in the cottage (the little white building near the parking lot, on the opposite side of the aquarium). Dr. Richard McBride (x2244) is the Population Biology Branch Chief. His office is located over in the main building.

4. PopDy Work

PopDy/Pub

\net\home0\pdy\pub This is a drive that you should definitely map. It is where we keep our public files. There are lots of folders and files. This is our dumping ground for papers, codes, anything that may be useful to the branch. It's a great resource. Before you write a code from scratch, check here first. Why recreate the wheel when you can modify what has already been done?

Discards

\net\home0\pdy\pub\GARM2008_Discard_Working_Group\sas_code Discards are estimated in accordance with the Standardized Bycatch Reporting Methodology (SBRM). For more information, see http://www.nefsc.noaa.gov/fsb/. Susan Wigley (x2359) put this series of codes together to make our lives easier when it comes to estimating discards. It is imperative that you read the '*README….doc*' files. They are unbelievably helpful. If you are a visual person, look at the PowerPoint file as well. These files give the step by step instructions on how to run the codes and in what order to run them in. For background information, read the documents in the '*background_material*' folder.

Commercial Landings

\net\home0\pdy\pub\CFDBS_SAS_extraction_codes Mike Palmer (x2041) wrote a series of landings SAS codes to aid us in apportioning out the unknown landings to the proper statistical areas. It runs for any species on the commercial database. Be sure to read the *general_overview.ppt* file. It explains how it works. The '*unknown_landings….doc*' file will give you the background information you need to understand how the codes are run and will also explain the output files. '*comlen….sas*' is the code that extracts the commercial length data; '*comage….sas*' extracts the commercial age data, and '*comland….sas*' pulls the landings data. The results of these files can be used to run BioStat.

Recreational Catch

Most recreational catch data can be accessed online at
http://www.st.nmfs.noaa.gov/st1/recreational/queries/index.html

If more detailed analyses are required, the SAS datasets are available on our system. They can be found in *\net\data1\mrfss*.

NAFO (Northwest Atlantic Fisheries Organization)

http://www.nafo.int/

Kathy Sosebee (x2372) is in charge of putting together the US Research Report for NAFO every year. She asks for updates to the survey indices and a little paragraph for each stock with the updated landings. You can also get summaries of foreign landings by species, area (NAFO subdivisions within US waters etc.) and country of landings through on the NAFO website: http://www.nafo.int/science/frames/research.html by clicking on the '*Data*' tab, and '*Catches and Effort*.'

Biosampling Requests

Every late August/early September, Michele Traver (x2195) sends an email to the branch, asking for the upcoming fiscal year's biological sampling requests, with an attached template. This is how we request commercial fishery length and/or age samples. Each analyst puts their request(s) together for their stocks and sends it back to her.

There are a few different ways you can review the data from the previous years to make educated selections for the next fiscal year.

1) You can access previous years' sample requests at http://nova.wh.whoi.edu/bsmdbs/. On the left side, click on '*Reports*' then, '*Report Menu*.' When the page comes up, you can change the year, calendar or fiscal year, group by region or species. At the bottom of the screen, you can view various summary tables.

2) In the *\net\home0\popdy\pub\Resource_Info directory*, there is a file called *'offshorehake_landings.sql'* in the. This file is an example of another way to access the landings by port, quarter, year, and market category. It can easily be modified to use for any species to take a quick look at the landings over the past few years.

3) Our very own Mike Palmer (x2041) put together a biosampling summary webpage to help us with our biosampling requests. Below are the instructions:

   If you stick the following link into a web browser it should take you to the website (you may be prompted to enter in your network username and password):

   \\net\home0\pdy\pub\biosampling_summaries\sampling_stock_summary.html

   From the homepage you can select a stock of interest. There are more stocks in the list than I've actually run the reports for, but so far I've run it for all species Susan listed below and most, if not all groundfish stocks. If a stock of interest has not been run (e.g., you don't see it listed or you've clicked on the link and the link is dead), just send me an email and I'd be happy to quickly run additional species.

   For each stock there are two reports:

   When you click on a stock it will take you to a summary of landings by port region and gear type for the last four years (based on VTR data since that's the only way to get current year information with the area and gear info). This will give you a feel for where the landings are occurring whether there have been changes in landings patterns over time and what's going on in the current year. The current year info is useful to see if there are actually landings occurring in the unsampled cells (i.e., are the port samplers simply not sampling or is there nothing to sample).

At the top of the page is also a link that will take you to a summary of length frequency sampling over time. In this summary I've provided an overview of sampling by port region, gear group, market category, quarter and year as well as a summary showing length sampling relative to landings so analysts can see if there are any cells being undersampled (this section could be more user friendly). Down below the tabular summary are plots of length frequencies by port region and market category and gear group and market category. The plots are based on a aggregate of the lengths over the 2009-2011 period (if these reports are updated in the future the window will slide so that they always include the three year prior to the current year). I think these are useful to understand the implications of relaxing strata (e.g., if the length frequencies for scrod from MA-N and ME/NH are identical then there is probably no problem relaxing the port-region stratification).

Status of the Stocks (SOS)

This is definitely one of our best resources. It's great for getting up to speed on stocks other than your own. This page is available to the public to give the most recent status of the fisheries resources in the Northwest Atlantic. We try to update it after each assessment though many stocks still need to be updated. It gives information regarding the species distribution, biology, and management, fishery and survey data, assessment data and results, and biological reference points. Each species also has a map of its distribution and corresponding tables and graphs. It also has links to other helpful information, such as line art images, Essential Fish Habitat documents, the latest Groundfish Assessment Review Meeting (GARM) documents, etc. If you are in PopDy, you will inevitably end up working on the SOS at some point.
http://www.nefsc.noaa.gov/sos/

When submitting your SOS documents, please submit them to Dr. Rago (x2341), Mark Terceiro (x2203), Betty Holmes (x2344), and Mike Palmer (x2041).

SAW/SARC/TRAC

Our stock assessment workshops are generally twice a year, with a few other meetings in between. They are formal peer-reviewed meetings in which the results of the assessment are presented to and evaluated by managers. The most recent information on our Stock Assessment Workshop (SAW) and Stock Assessment Review Committee (SARC) meetings and Data Poor meetings can be found at http://www.nefsc.noaa.gov/nefsc/saw/. It gives links to the working papers and terms of reference for the upcoming meetings, as well as links to historical documents from previous SAWs/SARCs.

Dr. James Weinberg (x2352) is the SAW chairman. Anne O'Brien (x2177) is his assistant. We work closely with them during the document preparing process. Their offices are in the main building.

However, we are currently in the process of changing the SAW procedure. Some stocks will be reviewed annually by the Assessment Oversight Panel (AOP). More information will be coming soon.

We also host Transboundary Resource Assessment Committee (TRAC) meetings. We alternate locations between Woods Hole and Canada. These stock assessment meetings are for the stocks in which we share the resource with Canada. Some of the shared stocks are haddock, pollock, yellowtail flounder, spiny dogfish, herring, and mackerel. All the information regarding the TRAC can be found at the same website, http://www.nefsc.noaa.gov/nefsc/saw/.

Loretta O'Brien (x2273) is the US Chair for the TRAC meetings. She's located right here in PopDy (A205).

5. PC Software/Programs

SigmaPlot 10.0

This is a graphics program which we use for most of our graphs, and it's the primary program we use for the Status of the Stocks (SOS) plots. With R up and coming, we may not use SigmaPlot as often as we once did, but it's still a good program to know. This software is not available online, but you can speak with Dr. Rago (x2341) about purchasing a copy.

You can copy and paste your data straight from Excel into the worksheet. Click on '*Graph*.' At the pull down menu, click '*create graph*.' At the pop-up menu, click on whatever type of graph you want and follow the prompts. Once your graph is made, right click. Click on '*Graph Properties*.' Here you can change your scale, symbols and/or line types, ticks, data, etc. If you want to edit the axis titles, right click them and click '*Edit*' or just double click them.

There are quite a few nuances of SigmaPlot. Kathy Sosebee (x2272) and Michele Traver (x2195) use this program the most, so please feel free to ask questions and see them after you install the program.

Fisheries Toolbox (NFT)

http://nft.nefsc.noaa.gov/

Here is where you download a user-friendly GUI interface for many of the typical stock assessment models that we use. It also gives information about the Toolbox, their designs, and what they are used for. It has models such as Virtual Population Analysis (VPA), Population Simulator (POPSIM), Stock Synthesis Version 3 (SS3), Age Structured Assessment Program Model (ASAP), A Stock Production Model Incorporating Covariates (ASPIC), Age Structured Projection Model (AGEPRO), and various others. The page that compares model features is quite helpful when trying to figure out which model to use.

Dr. Chris Legault (x2025) and Alan Seaver (x2024) are the on-site guys to see if you have any questions or concerns about the toolbox.

R/Tinn

This is the newest program we use. You can find it in *\net\home0\pdy\pub\R_Day\Install_Files.* R is the statistical program; Tinn is the text editor. The PowerPoint file gives you full instructions on how to install R and Tinn on your machine. It can create all sorts of graphs and maps.

In the '*Introductory_Workshop*' folder, the 'R Basics v2.pdf' gives you a lot of background information about R, created by Dr. Chris Legault. You can follow along with the PowerPoint; there are examples of R code in that same folder. Please look at all the PowerPoint files within that directory; they are quite helpful. There's information on reading and writing files, and graphics information, like colors, symbols, and line types. For the more advanced R users, see the '*Intermediate_Workshop*' folder.

Some other helpful files are 'R for beginners.pdf,' 'R-intro.pdf,' and 'usingR.pdf.' These give background information as well as syntax and examples on how to use R.

In the *\net\home0\pdy\pub\RMAPS* directory, there are another group of folders that are examples on how to create maps using R. The PowerPoint file is a demonstration that you can follow as an example. In order to be able to go through these examples, you need to install the following R libraries: maps, maptools, sp, PBSmapping, and shapefiles. (To install the libraries, follow the same directions as you did previously.)

There is a directory called *\net\home0\pdy\pub\R_share* where there is a "readme" file and another folder for data meeting scripts. This gives basic R code for the typical things that need presenting during a data meeting (such as catch at age bubble plots, commercial data, and survey data).

Dr. Liz Brooks (x2238), Dr. Tim Miller (x2365), Dr. Chris Legault (x2025) are our local R experts.

BIOSTAT (v7.03)

You can download this program from our PC Soft directory *(\net\pcsoft\biostat\).* This is our window based commercial data biostatistical analysis program. The user inputs the landings, length frequency, length weight, and age (if applicable) data into the program and it outputs the estimated numbers landed by length and age by market category. As you input each file, the appropriate tab at the top will become highlighted. You can opt out of the age data, should your species not have it, by unclicking 'Perform Age Analysis' on the lower right corner of the window.

In the '*Landings*' tab, it gives a table of the landings data you just put in, along with a pie chart by market category. You can click 'Prorate Combined Landings' if that's an option you'd like.

In the '*Length Data*' tab, it gives a table of both the length frequency and length weight data. It also gives the minimum and maximum length from that file (so if the maximum length in 1989 is 113, it may be different in 1990). You can easily change this by filling in the minimum or maximum length.

In the '*Block Specification*' tab, there are 3 sections: market category, region, and time period. Under 'Market Category,' use the pull down menu to select the market category. Double click on the Statistical Area (on the left side). The selected areas will come up in red on the right side, under 'Statistical Areas Selected.' Use the pull down menu under 'Time Period' to select the time frame. (Note: Semi-Annual is half year.) At the bottom of the screen, click on 'Update Block Specification.' Once you do that, a window with 3 tabs will come up. The '*Length Frequency*' data tab gives a summary table, with landings and number of samples. Make sure that it says 'OK' in the 'Data Check' column. If there is an error or not enough data, you may need to change the time period or 'borrow' samples from other areas. In the '*Length Weight Data*' tab, it gives a

summary table of the alpha and beta values used. The '*Sample Length Frequency Plots*' tab is where you can select any plot by using the pull down menu.

You have to go through these steps for each market category. For each one, you'll need to make sure the appropriate region and time period are selected and click 'Update Block Specification.'

Under 'Run,' click on 'Run Biostat Analysis Program.' If you have not already saved the input file, you will have the chance now. If the program runs successfully, a window will pop up telling you so. Click 'OK' to see the results. A window with 10 tabs will open; applicable tabs will be highlighted in blue. '*Landings & Samples*' is a self explanatory summary table of landings and samples. '*Combined Markets*' is a table that has the estimated catch in numbers by length. The '*Combined Length Frequency*' tab displays a vertical bar plot of all combined market categories. The '*Market Length Frequency*' tab presents a similar plot by market category. You can view the plot by market category and block (time period) in the '*Length Frequency by Block*' tab. Use the pull down menus for each to view the plot of choice.

You will get a series of output files. The *.out file is your output. It's a text file that gives all the summary information and tables. The *.aux file summarizes the length frequency data by block (time period), market, and combined.

You can also export R.dat files to be used in an R environment.

The new version (7.02) has new developments:
*The new calculation engine fixes an issue in earlier versions regarding rounding off of weights at age in cases where bin size was not equal to 1

*There are additional data items and greater precision in auxiliary files.

*This version updates the graphical interface.

*The new interface does more thorough data checking in the block specification.

*A new plot allows the user to review weights at length to verify that length weight equation coefficients are correct.

*There is a more user friendly capability for importing age length keys.

There are examples of the SAS codes and input files in the PopDy directory (flk* files) to help you get started. They are for fluke, to compile landings at age. *cflenage2011.sas* retrieves and creates the *.dat files as input to Biostat. *FLK2011_v7.INP* is the Biostat input file.

For discards at age, *flk-dk-comp-BIOSTAT-2011.sas* takes a standard SBRM program-suite output file and formats for input to Biostat. *trwl-disc-lenage-2011.sas* compiles

observed discard lengths and commercial and survey ages into formats for input to Biostat. *TRWL-2011.INP* is the input Biostat file.

Dr. Chris Legault (x2025) and Al Seaver (x2024) are the developers of Biostat so feel free to hit them up with questions as needed.

SAS/Linux Commands

Most people are using the PC SAS version, but there are still some of us who are using SAS on putty. There are certain commands that will help make navigating SAS a bit easier.

sas filename.sas & by using the & sign, you can find out if there is an error rather than just waiting. If there is an error, you will see Error 2. When you do this, you will get a number next to the filename as it is running. This is almost like the job number.

kill –jobnumber this will stop the file from proceeding.

cd this will change directories. If you want to go up one directory, type in *cd ..* to go up a directory or type in *cd pathname/directoryname*

cp this will copy a file for you. The syntax is *cp filename newfilename*

ctrl KX this will save your file WITHOUT changing the name.

ctrl KF this will find a word or number in your file, one at a time. Each time you find it, it will ask if you want to ignore it or replace it (just follow the prompt at the bottom of your screen).

ctrl U this will move you up, similar to page up

ctrl V this will move you down, similar to page down

mkdir this will make a directory. The syntax is *mkdir directoryname*

more this allows you to use your space bar to scroll down your screen. The syntax is *more filename*

ls this will list everything in your directory. You can use *ls *.extension* to list only those files with that particular extension.

mv this will move a file. The syntax is *mv oldfile newfilename* or *mv myfile.txt newdirectory/*

SURVAN (survey analysis)

Some of us on the floor use PC-SAS and others still use command line. If using the command line, we use Linux boxes, such as Neptune, Jupiter, Putty, and Nova.

SURVAN is the old school way to run our survey analyses. You can access it by using CRT or Putty. The SAS code extracts the data and modifies it to calculate survey biomass and abundance indices. Depending on if you have PC-SAS, you can run code after modifying macro definitions and directory paths at the top of the program, or in a UNIX SAS file, you should only have to change the year and file names (season and species code are usually already set.) Most people have run these at some point, so there are files that you can modify rather than trying to recreate the wheel.

After you run the *.sas file, 3 files should be created: *.sta, *.cat, and *.age (file extension refers to 'station' or 'catch' or 'age'). In addition to the .sas file, you will need to create (or modify) a .com file and a .par file. The *.com file needs to list the 3 files just created from the SAS run (*.sta, *.cat, and *.age) as well as the name of your *.par file. The *.par file contains various options including length-weight parameters, maturity parameters, vessel, gear and door conversions etc. See file called 'keywords813.doc.' This file gives the basic information to help with UNIX. Sourcing the *.com file (typing: source 'filename'.com at the command line for UNIX SAS) calls SURVAN and creates a *.lis file. The *.lis file contains the output data such as mean length/tow, mean weight per tow, length frequency, and proportion at age/length.

If any of the tables in the *.lis file (specifically, the "POOLED METHOD: PROPORTION AT AGE AND LENGTH FOR SET...") has a flagged row due to *missing age*, then we use "PAGE" to add an observation to that row. You basically make an observation of what you think the age is for that particular length based on similar age/length outputs in the .lis file from that year or neighboring years. After you've determined age/length combinations that need to be filled in, add lines:

```
setenv PAGE_OUTPUT fall9903pageN.lis
$SVDBS/survan/v813/page813
```

to your .com file and re-run the *.com file so that it produces a new *.lis file.

The PAGE program will list the cruises with missing data by set. Type MOD # for the first set number that you wish to modify, and it will then prompt you to enter the length, age, and number at age. Type 'Save' to save the modifications and select new sets to modify, or type 'EXIT' to save and exit the program when finished. Comment out the PAGE commands in your *com file:

```
#setenv PAGE_OUTPUT fall9903pageN.lis
#$SVDBS/survan/v813/page813
```

and re-source it (after removing the *lis file). In your *lis file, there will be a * next to the lengths you added ages to. Once again, scan through and make sure that you have corrected all of the 'missing age' flags.

SAGA (version 6.9)

SAGA (Survey Analysis Graphical Assistant) is a GUI that allows you to extract survey data similar to using SURVAN in Unix. You can download SAGA from our PC Soft directory *(\net\pcsoft\saga\)*. You will also need to download Oracle 11, which you can get on a CD from Al Seaver (x2024).

Step 1.

- Sign in with your username and password. Click on*'Login to Oracle'*.
- Get data from Oracle tables
- Yyou should have 7 tabs. Before you begin, click on the Options menu at the top of the box. Click on *Select Program for File Viewing*. Browse for a text editor, like NotePad or WordPad. This will allow you to view files easier. Then, click on the Oracle menu in the top left side to open an existing SQL file or create a new one. If you create a new one, you can continue with the blue tabs.
    - The *Species Specification* tab is where you pick your species. You can do it by species name (in alphabetical order) or by the 3-digit number. The Multiple Species check box is an advanced option not used for standard assessments.
    - The *General Data* tab is where you choose the season(s), year(s), status code, sex code (if you are specifically choosing UNSEXED, click the 'Specify Other Sex Codes' and use 0), and purpose code.
    - The *Purpose Code* tab is where you choose which survey you want data from (ie NMFS Fall bottom trawl, NMFS Shrimp survey, etc.)
    - The *Strata Specification* tab is where you select the strata for the data you are extracting. It's all in numerical order. You can click on strata one at a time or hold down the mouse button and select a number of successive strata. If you accidently include an extra stratum in the selected list, just double click on it to remove it.
    - The *Multiple Species* tab is only available if you extracted multiple species data. Otherwise, you are not able to click on it.
    - The *TOGA Specification* tab is where you can select the TOGA code. It is automatically set to "Disregard TOGA in Station Selection – Use SHG" and "Disregard Acquisition Code in Station Selection". If you would like to use the TOGA code, you have to uncheck it, for the other options to become available.
    - The *SHG Specification* tab is already set for "SHG Code Less Than or Equal to 136". This selects tows where station, haul and gear codes meet or exceed the typically accepted levels of haul length and gear damage for representative, randomly sampled stations. There is nothing to do here, unless you want to change the SHG specifications from the standard (not recommended without strong justification).

- After you have done all that, click on the Oracle menu on the top left side. Click on *Retrieve Data from Oracle*. After it's done, a window will pop up where you can save the query with a name. If you don't save it, any record of your query will be lost. It is nice to keep them so you can refer back to the selections made previously when updating an assessment years later.
- Once you save (or don't save) the sql file, there are 10 tabs at the top. From here, the next step is to click *Merge Data for Input to Survan*. This will merge the data needed for the next step. A window will pop up and tell you if there are any errors that need to be corrected. If there is not the same number of records, a message will pop up alerting you to this fact. Once you hit OK, you can view the errors encountered in the log file. Click on *View*. Then click on *View Saga Data Validation Log*. This gives you the list of errors.
- If there are no errors, you can move onto the next step. However, if there are issues, you need to click on *Perform Data Fixups on Merged Survan Catch Data*. There will be an arrow that that pulls up another menu. This allows you to find out where the errors appeared (catch, length or weight data). If the options are grayed out, then there is nothing to correct. If the writing is in black, then click on that option to fix the errors. A window will pop up with each highlighted option. It will allow you to: leave weight at zero in Survan merged catch, drop the tows from the merged input, or use the length-weight equation to calculate the missing values. If you click on the option using the LW equation, it will prompt you for the Alpha and Beta coefficients. If you don't choose an option, it will not allow you to save the input data needed for the next step.
- If you are planning to use the Bigelow data or your species has conversion factors, click on the next highlighted option *Specify Conversions to Merged Survan Catch Data*. The *Conversion Specification* tab is where you implement the door, gear and vessel conversion factors. Click on whichever ones are fitting for your stock. They are optional but highly recommended in most cases.
- The next tab is the *Bigelow Calibration*. This is where you can click on *Do Not Apply Bigelow Conversion* (this is set automatically), *Convert Bigelow Tow Observations to Albatross*, or *Convert Albatross Tow Observations to Bigelow*. If you choose either conversion, you will have to fill in the *Numbers at Length* column, and the *Weight Options*. Dr. Tim Miller (x2365) created the length calibration values needed for that column. If you are using a constant value, put that value in *Numbers at Length* column (fill all the way down). If you choose the Length Weight option, you will need the length weight estimates (a and b) for your species. An excellent source for these values is in Table 1 of the link below: http://www.nefsc.noaa.gov/publications/tm/tm171/#results Then click on *Apply Conversions to Merged Survan Catch Data*.
- The other tabs are data and plots. You do not need to do anything there. It is often good to glance at these to make sure that data were retrieved correctly, e.g. data are present in all four tabs (assuming age data are available for your species) with the correct species and strata. SAGA validates the data for you. The QA/QC is much better since FSCS, but occasional problems still find their way in to the datasets.

- Click *Save Survey Data as Input to Survan*. Another window will pop up where you can save the station data, merged catch data and age data with specific names. If you don't give it a specific name, it will keep the original one and be overwritten should you run another query.
- Some optional things that can be done at this point are
    - *Merge Data for GIS*: creates a simple ascii file with lat and lon of stations and catches. The file can be open in a real GIS program or else a simple GIS plot can be viewed under the View tab.
    - *Split Input to Survan for Day/Night*: this will literally give you the file by day and night.
    - Under the *Data* menu there are a number of plots that can be viewed if you have age data present. This allows an easy check on some of the biology of the species.
    - *Save Length Data Table* allows for the user to export and save the length data as a CSV file.

Step 2. Set up Survan Run

- Under the *Survan* menu, you can click *Open Existing Parameter File*, and you can browse to find an existing file or you can click on *Create a New Parameter File*. There will be 7 tabs.
    - The *General Specification* tab is where you put all your input files. The Model ID is the title you want. Browse for your saved station, merged catch data and age files. You can opt to skip reports by age, which is worth doing if your stock isn't aged. Click *Skip Age Report* if you don't want to use this data. The *Survan Input Data File* is what your parameter file name will be. If you don't give it a specific name, it will save it as the number given, this is not recommended. It is better to save as (see below) so an informative name is used.
    - The *Options* tab is where you can ask for delta distribution, bootstrapping or log transforms. There is also a button if you want to export this particular data to R.
    - The *Length* tab is where you can insert your alpha and beta for a LW equation (not necessary to fill this) or length grouping (default is 1 cm bins) or create cut-off sizes for the analyses.
    - The *Biological* tab is where you want to make sure that you have the right species and gender. Click on '*Update Species*' and enter the 3-digit species code. (It will not run if you don't click it.) You can also optionally insert maturity ogive values.
    - The *Set Specification* tab is where each set (year/cruise) is. Click on *Auto-Scan* for all the sets to be automatically inserted. You can remove a cruise/set by clicking the 'Remove Set' button. This will bring up a window where you type in the cruise6 code you want to remove and click OK.
    - The *Advanced* tab is more for information than anything. They give information regarding allocated parameters.

- The *Restratification* tab is where you can combine strata if you want to (this option not used in most assessments, but useful when bootstrapping to ensure a minimum number of tows per stratum). It will give you the available strata and you can then choose how to group it. Click on '*Add New Group*.' When you enter the new ID, be sure to use 2 digits. For example, if you are combining strata 01010 and 01020 into one set, call it S01. This way, if you have 12 groups, they will be in numerical order in the output (01, 02,…10, 11, 12). It tends to get confused if you don't use 2 digits. Also, if you decide to take out a group, you should be able to do it right in the *Restratification* tab. If it still gets confused, you need to go into the actual parameter file (see below) and delete the group in there. Be sure to change the number of groups (see the highlighted number below).

```
SURVAN VERSION X
#
# Survan Input File Version X 3.7
#
[TITLE]
Spiny Dogfish FEMALES Fall Survey GBK, 1968-1971
[PARMS]
380  50  400  300  50  20  5  4  11  2  14  0
[FILES]
H:\DOGFISH\SAGA\GBK\FEMALES_FALL6871GBK_STATIONVIEW_015.TXT
H:\DOGFISH\SAGA\GBK\FEMALES_FALL6871GBK_MERGEDCATCH_015.TXT

C:\SAGA\SAGAV35\MASTER_STRATA.TXT
C:\SAGA\SAGAV35\COASTAL_COORD.TXT

[SPECIES]
015 SPINY DOGFISH
0
[OPTIONS]
0  0  0  0  0  0  0
[CONVFAC]
0.000  0.000  1.450  1.400  0.810  0.790
[BOOTSTRAP]
0  1000  51654
[CFI]
95.0
[SETS]
Cruise_196817
196817  01130-01250

Cruise_196911
196911  01130-01250

Cruise_197006
197006  01130-01250

Cruise_197106
197106  01130-01250

[RESTRAT]
S01  1
```

```
01130
S02  2
01140
01150
S03  1
01160
S04  2
01170
01180
S05  1
01190
S06  1
01200
S07  1
01210
S08  1
01220
S09  1
01230
S10  1
01240
S11  1
01250
```

Step 3. If age-based analysis, run Sage

- In Sage menu select *Analyze Age Length Key*.
- This opens a new window and checks for at least one age observation for every observed length. If there are lengths with no ages, fill in an age based on the biology and surrounding length-age combinations for this case. A record is kept in the parameter file of any changes made here, so you can replicate these decisions or compare the end results with different fills. Lengths with missing ages will be highlighted. Click *Validate Age Keys* once all are filled to ensure get message that all lengths have ages.

Step 4. Save File and Run Survan

- In the Survan menu, click *Save Survan Input File* to give your file a name. If you don't, it will either save it as the number in the *General Specification Tab* or overwrite whatever the original filename was.
- Click *Run Survan*. A black box will come up and will list each set that it completes and will give a report (*.REP) file for the output. It may take a while to view the Report file in SAGA (depending on your choice of programs to view files), an alternative is to open it through Windows Explorer.
- There are also a number of plots that can be viewed through the GUI under the View menu. They will appear in a new window.
- A number of auxiliary files are created which can speed up grabbing data instead of digging through the report file. These are described in the Help files in the Survan section under the heading SURVAN Auxiliary Files.

If you want to go back to any particular window within SAGA without having to re-open a file, click on the Windows menu on the top right side. You can choose from the Login window to the Parameter window.

6. Frequently Asked Questions (FAQs)

- **What is the difference between a statistical area and survey strata?**
  - The Northwest Atlantic Fisheries Organization (NAFO) created the 3-digit statistical area code, by large region for catch reporting purposes. The survey stratum area codes are based primarily on depth and region. The five digit codes are made up by what kind of survey (the first two digits; 01 offshore, 03 inshore, 04 shrimp, 06 invertebrate, 07-08 inshore/offshore south of Cape Hatteras, 09 MADMF), stratum number (second two digits), and if the area was split. The last digit is usually 0, but if it was split into two areas in history, it is given a value of a 1 or 2.
- **Who is in charge of what species?**
  - See *FY14_species_responsibility.xls* file. This gives a list of who is responsible for which species, based on the FY 2014 biosampling requests.
- **Where can I find phone numbers for the branch?**
  - See *officeextension – PDB telephone numbers.pdf*. This gives the list of everyone's room numbers and extensions in PopDy.
- **Where can I find strata or stat area maps?**
  - In the *\net\home0\pdy\pub/Resource_info/* directory, there are a bunch of maps created by various members of our staff. You will find maps and other useful information in this folder.

7. Acknowledgements

Thank you to all the people who read (and re-read) this document and for all their great ideas, specifically Colleen Close, Kathy Sosebee, Dr. Larry Alade, Laurel Col, Jessica Blaylock, Gary Shepherd, Dr. Mark Terceiro, and Dr. Chris Legault. Thank you to Alicia (Long) Miller for the maps she provided.