The bimonthly variability in prey for summer flounder was moderately explained by two taxa: scup (Stenotomus chrysops) and gammarids (e.g. Pseudopleuronectes americanus) of the northeast US continental shelf.

The feeding habits of summer flounder included squid (Loligo pealei) and various fishes (e.g. silver hake [M. bilinearis], scup [S. chrysops], and red hake [U. chuss]).

In contrast, yellowtail and winter flounders fed primarily on benthic invertebrates (i.e. polychaetes, gammarids, and sea anemones [Order: Actinaria]).

The objectives of this study were to quantify the temporal and spatial differences in flatfish feeding habits for three species: summer flounder (Paralichthys dentatus), yellowtail flounder (Limanda ferruginea), and winter flounder (Pseudopleuronectes americanus) of the northeast US continental shelf.

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The bimonthly variability in prey for summer flounder was moderately explained by two taxa: scup (S. chrysops) and gammarids (e.g. P. americanus) of the northeast US continental shelf. Bimonthly trends in summer flounder diet composition were evident, albeit, multiple geographic regions were not available to examine. This project highlights the benefits of sampling flatfish feeding habits on a finer temporal (bimonthly) scale particularly for summer flounder (highly piscivorous), and using in-lab stomach processing for benthic invertebrate feeders. Given the results shown here, future work will examine the interplay among flatfish diet, reproduction, and bioenergetics.