Stomach Examiner's Tool on Line: Preliminary Result

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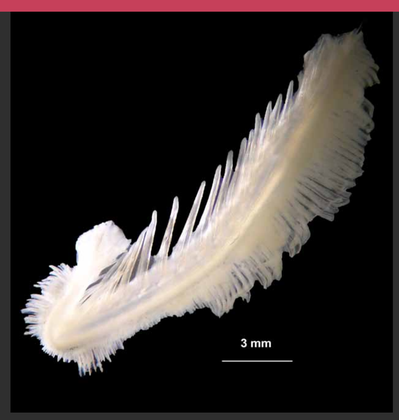
NOAA FISHERIES

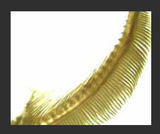
Ampeliscidae-Ampelisca-sp

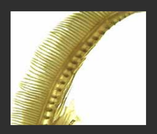
Calanoidae-small-size



Flathead-sole-first-gill-arch

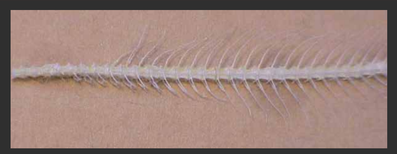
Ascidiacea

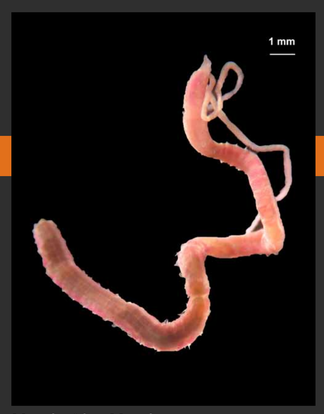

Walleye-pollock-gill-arch-outer


Walleye-pollock-gill-arch-inner

Lumbrineridae-composite-uncinus

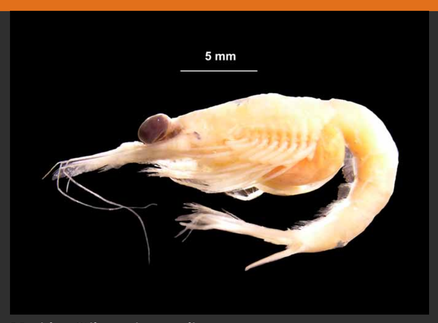
Lumbrineridae-jaws


Pacific-herring-vertebrae

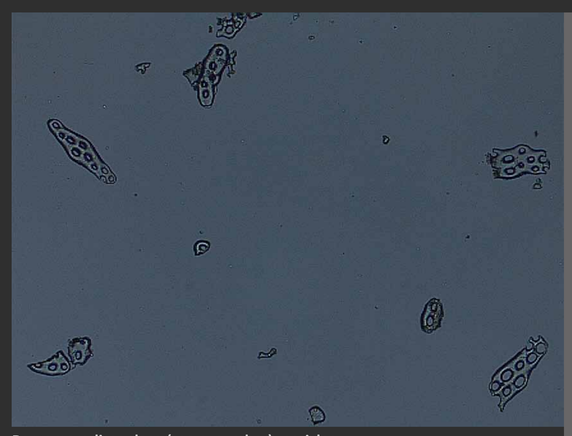


Magelonidae-Magelona-sp

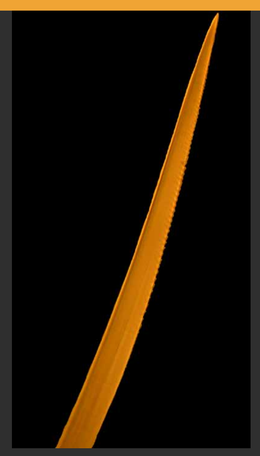
Mysidae-Stilomysis-grandis-telson

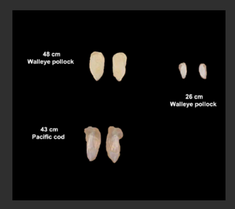


Mysidae-Stilomysis-grandis


Pentamera-lissoplaca (sea cucumber) -ossicles

Polynoidae (polychaete) -notosetae


Pollock-PCod-Postcleithrum



Pollock-PCod-Subopercles

Arrowtooth-flounder-otoliths

Background

Food habit studies reveal the trophic relationships that influence the distribution and abundance of animal populations. The Food Habits Laboratory of the Alaska Fisheries Science Center (AFSC) Resource Ecology Ecosystem Modeling Program (REEM) has been collecting food habits data of commercially and non-commercially important fish species since the early 1980s in order to understand and predict the ways in which predator-prey relationships influence the population dynamics of managed fish species. The sampling area covers the eastern Bering Sea, Gulf of Alaska, and the Aleutian Islands. The data have been used for ecosystem modeling, fishery management, and ecological studies.

Objectives

The objective of this web site is to provide the comprehensive information as a guide for the stomach content examiners to identify the items in the fish stomachs. The data are stored in ACCESS.

Materials and Methods

The stomach contents analysis is a tedious, time-consuming process. After 30 years of stomach contents processing, we accumulated lots of taxonomical information that is useful for the stomach contents analysis. Since the digital camera available, we recorded the taxonomical information of the whole specimens, partially digested specimens, gill arches, vertebrae, postcleithrum, otoliths, telson of crustaceans, subopercle of fish, and setae of polychaetes, etc. With this information in the computer (on line later), stomach examiners can access the taxonomical information fast and easily.

Results

The predators in this web site included small pelagic fish, juvenile fish and adult fishes. The predator fish size can be as small as 3 cm like *Protomyctophum thompsoni* (bigeye lanternfish) or as big as 300 cm *Somniosus pacificus* (Pacific sleeper shark). The preys can be the zooplanktons (in the upper water column), the shrimps and crabs (in the epi-benthic), small forage fish (in the upper water column), juvenile and adult fish (on the bottom or in the water column), cephalopods (in the water column), benthic or epi-benthic (polychaetes, amphipods, marine worms, clams, and gastropods). Up to date, we have 751 pictures in the file.

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