

White-sided dolphin stomach content analysis update
By Frederick Wenzel
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INTRODUCTION

Dr. James Craddock (WHOI), Pam Polloni (WHOI), Brett Hayward (NEFSC) and Frederick Wenzel (NEFSC) have looked at the stomachs of 21 fishery bycaught Atlantic white-sided dolphins captured in both otter trawls and sink gillnets in the Gulf of Maine. We have also looked at 35 stranded Atlantic white-sided dolphins stomachs for comparative analysis. All samples are from the Gulf of Maine and were collected between 1989 and 2006. Most of the samples are from 2001-2005.

METHODS

A complete necropsy was made on 51 of the 56 dolphins, and stomach contents were obtained for all. All stomachs were weighed full, emptied, and all hard parts (skulls, jaws, bones and otoliths) were examined to identify the prey species in the stomachs.

Life history data for the fishery bycaught Atlantic-white sided dolphins are currently being compiled and are under review. This will provide information such as length, weight, sex, location, bycatch date, etc. for each bycaught animal. We will be looking for any inter-annual and seasonal variations.

Stomach contents of the dolphins may also include prey of prey, as many fish species predate on other species or cannibalize their own species. We will identify many of these biases in a forthcoming paper.

At this time, we are measuring individual otoliths to determine length of fish prey found in the stomachs. Fish weight regressions for fish of the Gulf of Maine, will be used to ascertain prey size and eliminate and/or identify prey of prey situations. Squid beak analysis will include species identification.

PRELIMINARY RESULTS

The 3 most common fish species found in the stomachs of observed bycaught Gulf of Maine, Atlantic white-sided dolphins include:

Silver Hake (*Merluccius bilinearis*)
Red Hake (*Urophycis chuss*) northern stock
Haddock (*Melanogrammus aeglefinus*)

Two cephalopod species, octopus and squid, were also found in the stomachs of the Atlantic white sided dolphins.

Otoliths from 10 other fish species were occasionally found in the stomachs of the Atlantic white-sided dolphins. Atlantic herring was found in only 3 fishery bycaught stomachs that were collected during the summer months. Herring was not observed in any of the stranded specimens.