Cohort abundances and daily variability in mortality of eggs and yolk-sac larvae of bay anchovy, Anchoa mitchilli, in Chesapeake Bay

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Abstract
Eggs and yolk-sac larvae of bay anchovy, Anchoa mitchilli, were surveyed at seven sites. Spawning by bay anchovy may be most intense in areas with high zooplankton biomass and where the ctenophore Mnemiopsis leidyi, a potential predator on eggs and larvae, was least abundant. The high abundances, combined with high and variable cohort mortality rates, emphasize the probable importance of the egg and yolk-sac larval stages in the recruitment process of bay anchovy.
Cohort mortality rates were lower in the middle of the peak spawning season (when food availability was maximum) and higher at the beginning and end of the spawning season. Since the duration of the high microzooplankton abundance is so short (4-5 wk) and because of the high energy requirements of young bay anchovy, it is proposed that adult bay anchovy spawn during the season of maximum food availability thus enhancing offspring survival. No difference was found between eelgrass and unvegetated areas in: egg or larval density, larval growth rates, or egg and yolk sac larvae mortalities. Morta... Bay anchovy, Anchoa mitchilli, is an ecologically important species in coastal systems, acting as predators on zooplankton while serving as prey for many birds and economically important finfish... Â Feeding ecology and daily ration of bay anchovy (Anchoa mitchilli) in the Mid- Chesapeake Bay. MS thesis. University of Maryland, College Park. â–8ppGoogle Scholar. Bay anchovies (and other anchovy species) are similar in appearance to fishes of the herring family (Clupeidae). However, they can be distinguished by a prominent silver stripe on either side of the body and lack of scutes (bony scales) along their bellies. Bay anchovies are of a greenish color above and silvery below and have a single dorsal fin, which is located midway along the body. Â 1996. Cohort abundances and daily variability in mortality of eggs and yolk-sac larvae of bay anchovy, Anchoa mitchilli, in Chesapeake Bay. Fishery Bulletin 98:257-267. Jones, P.W., F.D. Martin, and J.D. Hardy, Jr. 1978. Development of fishes of the mid-Atlantic Bight: an atlas of egg, larval, and juvenile stages. Volume I: Acipenseridae through Ictaluridae.