

Food Regime of Commercial Juvenile *Cynoglossus arel* Fishes in the Khuzestan Coastal Waters

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Abstract

This survey was conducted to study diets and some feeding indices of dominant and commercial Juvenile *Cynoglossus arel* in Khuzestan coastal waters. A number of juvenile *Cynoglossus arel* species was captured in main fishing areas, the western coast (Buseif-Lifeh) and Eastern coast (Bahrekan), of Khuzestan. These animals were sample randomly by shrimp trawl net every month, during March 2006 to December 2007. After catching the fishes, we did biometry (measured the length and weight of fish). Then their abdomens which were opened by scalper and digestive apparatus were hold in 5% formaline and the samples were taken to the lab. In the lab, we first measured the length of fish intestine then digestive contents were ejected and weighted by digital weighting machine. Finally, food items were identified by invert microscope and categorized. The stomach contents of 85 individuals juvenile *Cynoglossus arel* were analysed. The small size of the individuals collected and the high percentage of full stomachs was (76%) and (24%) empty. The results of vacuity index showed random monthly fluctuations in the values. The highest (65%) and lowest (0%) values were observed in October and March, April and May and October nrespectirely. The highest percent empty stomach (66%) and the least percent empty stomach (0%) was observed in March and the highest Feeding Intensity was in March (3.35%) and the least Feeding Intensity in October (0.31%) in east site. In October, the highest percent empty stomach was (64%) and the least percent empty stomach (0%) in April and May and the highest Feeding Intensity in May was (1.51%) and May the least Feeding Intensity in October was (0.25%) in west site. The values of occurrence index (Fp) showed 81.9 for Crustacane followed by Bivalvean (67.5%), Spong (63.5%), Bryozoan (60.5%), Diatome (41.4%), Copepoda (31.2%) and Algae (33.3%). The results showed that Crustacane, Bivalvean, fish, shrimp Spong, Bryozoan are the main food source for Juvenile *Cynoglossus arel* followed by Diatome, Copepoda and Algae as secondary food source. The values of Numerical diet composition index (Cn) showed 34% for Crustacane followed by Bivalvean (25.18%), Spong (18.95%), Bryozoan (15.16%), Diatome (10.41%), Copepoda (4.97%) and Algae (7.49%). The results showed that high component of diets inculod Crustacane, Bivalvean, Spong, Bryozoan. The results of Repletion vacuity index showed random monthly fluctuations and were different. The highest linear groups percent empty stomach decreased and full stomach increased. The results Index of Relative Emportance showed the highest linear groups include Crustacean, Bivalvean, fish, shrimp and the least linear groups include copepod, sponge and bryozoan.

Keywords: Juvenile fish, Feeding, Coastal waters, Khuzestan
