

Summary Table of Tilefish, ( <u>Lopholatilus chamaeleonticeps</u> ) life history for the Gulf of Mexico. Associations and interactions with environmental and habitat variables are listed with citations.												
							Trophic relationships		Habitat Associations and Interactions			
Life Stage	Season	Location	Temp(°C)	Salinity(ppt)	Oxygen	Depth(m)	Food	Predators	Habitat Selection	Growth	Mortality	Production
Eggs	Late spring-summer	Near edge of continental shelf	Hatched in 40 h at 22.0-24.6 C in laboratory			Pelagic						
Citation	5,7,10	6,7	7			6						
Larvae	Summer	Offshore				Pelagic						
	7	7				6,7,13						
Early Juveniles (Pelagic Juveniles)						Pelagic to benthic; settle to bottom at 9.0-15.5mm SL						
						6						
Late Juveniles (Benthic Juveniles)								Larger tilefish and other fish species	Burrow and occupy simple vertical shafts in the substrate			
Citation								8	1			Tilefish, ( <u>Lopholatilus chamaeleonticeps</u> ) cont.
							Trophic relationships		Habitat Associations and Interactions			
Life Stage	Season	Location	Temp(°C)	Salinity(ppt)	Oxygen	Depth(m)	Food	Predators	Habitat Selection	Growth	Mortality	Production
Adults		Outer continental shelf	Usually found at 9-14.4C; may occur up to 18 C; high catches have been reported at 13.0-14.4C			80-450m; more common at >110 in Atlantic and >250 in Gulf Mexico	Predominately crustaceans; also fishes and other benthic organisms	Sharks and other tilefish; also compete for food and habitat with other demersal fishes	Dig and occupy burrows along Outer Continental Shelf and on flanks of submarine canyons in malleable clay substrate		Due to long life, slow growth, complex breeding system, and habitat specificity, are vulnerable to overexploitation. Susceptible to mass mortality events due to cold water intrusion	Abundance strongly correlated with presence of silt-clay substrate. Fishery experiences cycles of abundance and depletions. Burrow areas are sites of local abundances of crustaceans and fishes
Citation		13	2,3,8,13			1,2,4,8,9	4,8	1,8	1,2,9,13		3,8,12,13	1,2,4,8,9,11,13

Spawning Adults	Spawn from March to November; peak spawning from May to September in Mid-Atlantic Bight, April to June in South Atlantic Bight									Males grow faster and reach larger size than females; fishing pressure may cause males to spawn at smaller sizes		
Citation	5,8,10									10,13		

#### Tilefish References:

1. Able, K.W., C.B. Grimes, R.A. Cooper, and J.R. Uzmann. 1982. Burrow construction and behavior of tilefish, *Lopholatilus chamaeleonticeps*, in Hudson Submarine Canyon. *Environ. Biol. Fishes* 7(3):199-205.
2. Able, K.W., D.C. Twichell, C.B. Grimes, and R.S. Jones. 1987. Tilefishes of the genus *Caulolatilus* construct burrows in the sea floor. *Bull. Mar. Sci.* 40(1):1-10.
3. Barans, C.A., and B.W. Stender. 1993. Trends in tilefish distribution and relative abundance off South Carolina and Georgia. *Trans. Am. Fish. Soc.* 122(2):165-178.
4. Dooley, J.K. 1978. Systematics and biology of the tilefishes (Perciformes: Branchiostegidae and Malacanthidae), with descriptions of two new species. U.S. Dep. Commer., NOAA Tech. Rep. NMFS Circ 411, 78 p.
5. Erickson, D.L., M.J. Harris, and G.D. Grossman. 1985. Ovarian cycling of tilefish, *Lopholatilus chamaeleonticeps*, Goode and Bean, from the South Atlantic Bight, U.S.A. *J. Fish. Biol.* 27:131-146.
6. Fahay, M.P. 1983. Guide to the early stages of marine fishes occurring in the western north Atlantic Ocean, Cape Hatteras to the southern Scotian Shelf. *J. Northw. Atl. Fish. Sci.* 4, 423 p.
7. Fahay, M.P., and P. Berrien. 1981. Preliminary description of larval tilefish (*Lopholatilus chamaeleonticeps*). *Rapp. P.-v. Reun. Cons. Intl. Explor. Mer* 178:600-602.
8. Freeman, B.L., and S.C. Turner. 1977. Biological and fisheries data on tilefish, *Lopholatilus chamaeleonticeps* Goode and Bean. U.S. Dep. Commer., NOAA NMFS NEFC Sandy Hook Lab. Tech. Ser. Rep. 5, 41 p.
9. Grimes, C.G., K.W. Able, and R.S. Jones. 1986. Tilefish, *Lopholatilus chamaeleonticeps*, habitat, behavior and community structure in Mid-Atlantic and southern New England waters. *Environ. Biol. Fishes* 15(4):273-292.
10. Grimes, C.G., C.F. Idelberger, K.W. Able, and S.C. Turner. 1988. The reproductive biology of tilefish, *Lopholatilus chamaeleonticeps* Goode and Bean, from the United States Mid-Atlantic Bight, and the effects of fishing on the breeding system. *Fish. Bull.* 86(4):745-762.
11. Grossman, G.D., M.J. Harris, and J.E. Hightower. 1985. The relationship between tilefish, *Lopholatilus chamaeleonticeps*, abundance and sediment composition off Georgia. *Fish. Bull.* 83(3):443-447.
12. Harris, M.J., and G.D. Grossman. 1985. Growth, mortality, and age composition of a lightly exploited tilefish stock off Georgia. *Trans. Am. Fish. Soc.* 114:837-846.
13. Turner, S.C., C.B. Grimes, and K.W. Able. 1983. Growth, mortality, and age/size structure of the fisheries for tilefish, *Lopholatilus chamaeleonticeps*, in the middle Atlantic-Southern New England region.