		iables are listed with citat		1								
Life Stage	Season	Location	Temp(°C)	Salinity(ppt)	Oxygen	Depth(m)	Trophic relationships		Habitat Associations and Interactions			
							Food	Predators	Habitat Selection	Growth	Mortality	Production
Eggs	Spring and Summer	Inner continental shelf, northern Gulf of Mexico	Hatch in 25 h at 26 C			Pelagic, over depths of < 50 m						
Citation	3,5,14	3,14	21			1,14,20						
Larvae	May to October	Inner continental shelf; abundant in northern Gulf of Mexico	Collected at 20-32 C	Collected at 28 to 37 ppt in Florida		9-84; most occur at <50m	Larval fish, especially carangids, clupeids and engraulids; also some crustaceans	Other immature fishes, such as dolphin and tunas				
Citation	3,5,14	3,5,14,24	5,14,20	5,14		14,20	7	8				
Early Juveniles		Estuarine and coastal; abundant in northern Gulf of Mexico	Most collected at > 25 C	Tolerate wide range of salinity; most collected at > 10 ppt.			Mostly fish; some crustaceans, gastropods and squid	Other pelagic fishes, such as dolphin and tunas	Juveniles may enter and use estuaries as nurseries		Bycatch in shrimp trawl fishery	
Citation		20,24	20	8,20			7	8	8,16		4	
Late Juveniles		Estuarine and coastal		Tolerate wide range; collected at 13-34 ppt.			Fish, especially engraulids and clupeids; also squid	Other pelagic fishes, such as dolphin and tunas	Some juveniles use estuaries as nurseries		Bycatch in shrimp trawl fishery; vulnerable to recreational fishery	
Citation		20		8			13,17	8	8,16		4,10	Spanish Mackerel (<u>Scomberomorus</u> <u>maculatus</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	Move to northern Gulf in spring; return to south Florida in eastern gulf, and to Mexico in western gulf in fall	Inshore coastal; also enter estuaries; Florida considered center of abundance	>20 C; usually taken at 21-27 C	Generally oceanic	Out to 75 m	Fishes, especially clupeids, engraulids and carangids; also crustaceans and squid	Larger pelagic fishes, such as sharks and tunas, and also the bottlenose dolphin	Prevalent in inshore coastal waters; caught from beaches, piers, jetties, small boats, and charter boats; may enter estuaries in pursuit of baitfish	Females grow faster and live longer than males	Fishing mortality may affect population size structure and sex ratio; impacted by harvest of baitfish	Influenced by availability of estuarine-dependent prey species
Citation	15,20,22	1,2,20,23	2,20	9	20	12,13,19	8	1,23	10	9,10	9
Spawning Adults	May through September	Inner continental shelf; northeastern and northcentral Gulf of Mexico considered important spawning areas	>25 C	Oceanic, 35.5- 36.5ppt.	<50 m						
Citation	6,14,18	5,14	11,20	11	3,14						

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