

Pink Shrimp (*Penaeus duorarum*) life history for the Gulf of Mexico. Associations and interactions with environmental and habitat variables are listed with citations as footnotes.

Life stage	Eco-region	Habitat Zone	Habitat Type	Season	Temp (°C)	Depth (m)	Prey	Predators	Mortality	Growth
fertilized eggs (0.31-0.33 mm diameter) ^{16, 18}	ER-1, ER-2, ER-3, ER-5	offshore	sand/shell	year-round	> 27	9-48				
larvae, pre-settlement postlarvae (< 15 mm) ^{1, 9, 11, 13, 16, 18, 28, 33, 67, 68, 78}	ER-1, ER-2, ER-3, ER-5	estuarine, nearshore, offshore	WCA	year-round	15-35	1-50	phytoplankton, zooplankton	fish, inverts	mortality is higher at 35°C	
late postlarvae, juveniles (> 15 mm) ^{1, 2, 4, 6, 9, 11, 12, 21, 23-25, 28-30, 35, 36, 40, 42, 45, 47-49, 51, 53, 55, 56, 58, 59, 60, 62, 63, 65, 67, 69, 72, 73, 75, 79}	ER-1, ER-2, ER-3, ER-5	estuarine, nearshore	SAV, soft bottom, sand/shell, mangroves (low densities)	year-round (W. FL); Fall-Spring (TX)	6-38	0-3	seagrass, annelids, small crustaceans, shrimp, bivalves	fish (spotted seatrout, red drum, toadfish, others)	no recorded kills from cold fronts	*0.05-2.08 mm CL/week*

sub-adults ₆ , 10, 15, 17, 19, 20, 22, 23, 25, 29, 31, 34, 35, 36, 38, 39, 42, 45, 46, 47, 50, 54, 57-59, 62-64, 66, 67, 72, 75, 77, 79	ER-1, ER-2, ER-3, ER-5	estuarine, nearshore, offshore	SAV, soft bottom, sand/shell, mangroves (low densities), *oyster reefs*	year- round (W. FL); Fall- Spring (TX)	6-38	1-65	annelids, small crustaceans, shrimp, bivalves	fish (spotted seatrout, sand seatrout, gray snapper, mackerels, red drum, grouper)	avoid cold by migrating to deeper water; low predation offshore	*0.05-2.08 mm CL/week*
non- spawning adults (> 75 mm TL) _{11, 14} , 15, 19, 22, 32, 34, 38, 39, 41, 50, 54, 61, 64, 66, 70, 71	ER-1, ER-2, ER-3, ER-5	nearshore, offshore	sand/shell	year- round	16-31	1-110	carnivores	larger fish, sharks	low predation offshore	
spawning adults (capable at 65-75 mm TL) _{8, 11, 14} , 15, 22, 32, 33, 34, 37, 41, 43, 50, 66, 72	ER-1, ER-2, ER-3, ER-5	nearshore, offshore	sand/shell	year- round (W. FL), spring- fall (TX)	16-31	9-48	carnivores	larger fish, sharks	low predation offshore	

Notes: larvae/ pre-settlement
postlarvae: recruit through passes or open shorelines. Primarily on flood tides and at night_{1, 5, 9}
wind speed affects larval transport₇₇
salinity = 0-43 ppt, optimum 10-22ppt_{28, 67, 69}

late postlarve/
juveniles: salinity = 0-65ppt, optimum > 30ppt (SC)_{1, 6, 7, 12, 21, 55, 65, 67, 69, 74}

Notes cont:

DO = 2.5-6.0 mg/L_{6, 63, 65, 69}

production linked positively with freshwater input (W. FL)_{5, 26, 27, 34, 61, 64}

areas with high production associated with inshore seagrass beds (E. FL, W. FL, TX)_{5, 26, 27, 34, 61, 64}

biomass increases with temperature and decreases at hypersalinities (55) in lab study₈₀

sub-adults:

salinity = 10-45 ppt_{6, 63, 67, 74}

DO 2.5-5.0 mg/L_{6, 63, 67, 74}

catch and effort offshore late in season correlated with subsequent landings_{5, 63}

recruitment low after protracted periods of drought_{5, 63}

adults/

spawning

adults:

salinity 25-45 ppt_{5, 26, 27, 61, 67}

production correlated with freshwater (W. FL)_{5, 26, 27, 61, 67}

no apparent effect of seagrass mortality inshore_{5, 26, 27, 61, 67}

Bold and italicized font indicates proxy data