Red Drum (Sciaenops ocellatus) 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
eggs[5, 6, 7, 10, 14, 16, 17, 18, 19, 20]	ER-1, ER-2, ER-3, ER-4, ER-5		WCA	summer, fall	20-30	**20-30**			high early in spawning	
larvae[5, 7, 10, 17, 18, 19, 20]	ER-1, ER-2, ER-3, ER-4, ER-5	estuarine	SAV, soft bottom, WCA	late summer, fall	18.3-31		copepods	larger piscivorous fish	Higher at 20-24°C than 25-30°C	0.5 mm/day. Faster at 25-30°C. 3-6 mm at 2 weeks. peak settlement from 6-8 mm TL
postlarvae[17, 18, 20]	ER-1, ER-2, ER-3, ER-4, ER-5	estuarine	SAV, emergent marsh, soft bottom, sand/shell	late summer, fall	18.3-31.0		copepods	larger piscivorous fish		Increased with increasing salinity (up to 30 ppt)
early juveniles[3, 5, 7, 9, 16, 17, 18, 19, 20, 21, 22, 25]	ER-1, ER-2, ER-3, ER-4, ER-5	estuarine, nearshore	SAV, soft bottom, emergent marsh	Sep-Dec	> 5-32.2	0-3	copepods, mysids, amphipods, shrimp, polychaetes, insects, fish, isopods, bivalves, decapod crabs	larger piscivorous fish	rapid decline in water temp. can cause mortality	higher in backwater than seagrass beds. 15-20 mm/month

late juveniles[1, 3, 4, 5, 7, 11, 12, 15, 16, 17, 18, 19, 21]	ER-1, ER-2, ER-3, ER-4, ER-5	estuarine, nearshore	SAV, soft bottom, hard bottom, sand/shell	fall	> 5-30	0-5	mysids, amphipods, shrimp, polychaetes, insects, crabs, fish	amberjack, sharks, larger piscivorous fish	changes in environment, disease, parasites, rapid decline in water temp.	15-20 mm/month
adults[4, 7, 9, 12, 15, 16, 17, 20, 23, 26, 27]	ER-1, ER-2, ER-3, ER-4, ER-5	estuarine, nearshore, offshore	SAV, emergent marsh, soft bottom, hard bottom, sand/shell, WCA		2-33	1-70	crabs, shrimp, fish	sharks	*M* (age-constant) = 0.07-0.13	L_{inf} = 881 mm FL, *k* = 0.32, t_0 = -1.29, max. age = 42 yrs
spawning adults[1, 2, 3, 7, 9, 10, 14, 15, 16, 17, 20]	ER-1, ER-2, ER-3, ER-4, ER-5	offshore	SAV, soft bottom, hard bottom, sand/shell	mid Aug - Oct	20-30	40-70		sharks		L_{50} (male) = 529 mm FL, L_{50} (female) = 825-900 mm FL

Notes:

eggs: salinity = 10-40 ppt[5, 7, 16, 17, 18]

larvae, post-larvae: salinity = 8-36.4 ppt[5, 7, 17, 18, 19]

early juveniles: salinity = 0-45; primarily 20-40 ppt[7, 18, 19]

DO > 0.6 ppm[17]

late juveniles: salinity = 0-45; primarily 20-40 ppt[7, 18, 19]

DO = 5.2-8.4 ppm[18]

adults: salinity = 0-45 ppt; primarily 20-40 ppt[7, 17]

spawning adults: mean batch fecundity = 1.54 million ova[24]

salinity = 25-34 ppt[7, 16, 17]

Bold and italicized font indicates proxy data