Summary Table of, Spiny Lobster, (Panulirus argus) 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
Phyllosome Larvae	Year-round off Florida Keys and the SE coast of Florida; Jun-Nov in the NE Gulf of Mexico	Offshore	Have not been collected below 24°C	Phyllosomes of other paliurids cultured at 33.5ppt to 35.5ppt		Usually collected between 0-50m but have been caught as deep as 175m	Plankton	Phyllosomes have been collected in the stomachs of pelagic fishes		Estimated to molt approximately 11 times over an estimated 9-12 month larval cycle. Size: 0.5-12mm carapace length		Genetic evidence suggests a pan-Caribbean stock. Occurrence in Gulf of Mexico may be associated with the Loop current
Citation	1,13,33,34	2,12,13,14	2,13			2,13	8,51	7		12,37,51		7,35,36
Puerulus Postlarvae	Recruit year-round to south Florida. Peak recruitment in spring; secondary peak in autumn	Offshore to nearshore	Tolerates 18° to 33°C at 35ppt salinity	Does not generally tolerate non-oceanic salinties			Apparently non-feeding	Primarily nocturnally active, water column feeding fishes	Settle in shallow near-shore waters and bays, principal settlement habitat in south Florida is macroalgaes, especially Laurencia spp.; seagrasses probably also function as settlement habitat	Metamorphose into first benthic instar in 7-21 days post-settlement	Predation by nocturnally-active fishes; physiological stress from temperature and salinity extremes	Postlarval abundance in south Florida somewhat associated with wind-forcing and presumably by the dynamics of oceanic gyres and by Caribbean-wide spawning activity
Citation	3,4,9,16,17, 18,19	3,4,9,14,16,17,18,19	10	10			11,14	24,25	9,19,20-23	10,24	10,24	3,24

Spiny Lobster, (Panulirus argus) 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
Juveniles	Year round	Nearshore; bays larger juveniles on offshore reefs		Generally stenohaline; 32-36ppt is optimum based on oxygen consumption rates			Invertebrates, especially mollusc and crustaceans	Elasmobranchs, boney fishes, octopods, portunid crabs	Macroalgaes to approximately 15-20mm CL, then sponges, solution holes, coral heads and octocorals to 45mm CL. Larger juveniles (>45mm CL) also on offshore reefs	South Florida; 3-4mm CL/month during the first year. Post-settlement growth influenced by temperature, diet and injuries	Mortality of newly-settled juveniles estimated to be 95%. Predation by fishes presumed to be the major cause of mortality. Larger juveniles experience mortality from the commercial fishery stemming from exposure and confinement in traps	Abundance of juveniles in S. FL dependant on larval influx and the availability of suitable settlement(eg., macroalgae and sea grass) and post-settlement habitat (eg., sponges, solution holes)
Citation	9,19,20-22,27,30	9,19,20-22,27,30		56			19,22	15,52	19-22,36,42,43	17,25,27-29	15,20,31,32,48	37,41,49,50

Spiny Lobster, (Panulirus argus) 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	Year round. Off Florida Keys and the SE coast of Florida; June-November in the N.E. Gulf of Mexico	Offshore reefs. Also nearshore and in bays in S. FL		Same as juveniles		1-100m. Common 2-45m. Usually >20 in Gulf of Mexico	Primarily molluscs and arthropods	Elasmobranchs, boney fishes, dolphins, loggerhead turtles	Primarily reefs. Rocky habitat in S. FL also common in shallow, hardbottom and seagrass habitats. Reproduction in S. FL occurs on seaward reefs	South FL: Estimated at 0.6mm CL/month; growth affected by temperature and injuries	FLorida fishery exploitation estimated to be 90%	Stock assessment using age-structured analysis indicates that fishing mortality has decreased as the number of lobster traps in the Florida fishery have been reduced
Citation	30,43,55,57	30,43,53,55		56		8,30,38,53,55	38-40	45-47	30,43,53,55	28	54	58

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