Summary table for pink shrimp (*Penaeus duorarum*) life history information for the Gulf of Mexico and Southeastern United States. Associations and interactions with environmental and habitat variables are listed with citations. EFL = east coast of Florida; WFL = west coast of Florida.

<table>
<thead>
<tr>
<th>Life Stage</th>
<th>Season</th>
<th>Location</th>
<th>Temperature</th>
<th>Salinity</th>
<th>Diss. Oxygen</th>
<th>Depth</th>
<th>Trophic Relationships</th>
<th>Food</th>
<th>Predators</th>
<th>Habitat Associations and Interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-spawning adults</td>
<td>Range: All year Most abundant: Spring (NC-EFL) Fall-Spring (WFL) Fall = Spring (TX)</td>
<td>Range: Offshore shelf, NC-TX Most abundant: WFL and TX</td>
<td>Range: 16-31 C Most abundant: above 25</td>
<td>Range: 25-45 ppt</td>
<td>Range: 1-110 m Most abundant: 16-50 m (WFL, TX)</td>
<td></td>
<td>Carnivores (see sub-adults) Few: presume larger fishes or sharks</td>
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<td></td>
<td>Low predation offshore WFL production correlated with freshwater; no apparent effect of seagrass mortality inshore; NC production inhibited by cold winter; overfishing not indicated</td>
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<tr>
<td>Citations</td>
<td>50, 61, 70</td>
<td>39, 64, 70</td>
<td>11, 14, 41</td>
<td>37</td>
<td>11, 32, 34, 50</td>
<td>15</td>
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<td>As above As above As above As above</td>
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<tr>
<td>Spawning adults</td>
<td>Range: All year (WFL) Spring-Fall (TX) Most abundant: Spring-Summer (WFL) Summer (NC)</td>
<td>Range: Offshore shelf</td>
<td>Range: 16-31 C Most abundant: above 25</td>
<td>Range: 9-48 m Most abundant: 10-30 m (WFL, TX)</td>
<td>Range: Above As above</td>
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<td>Coarse sand = shell or sandy silt; &lt; 1% organics (EFL, WFL)</td>
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<tr>
<td>Fertilized eggs</td>
<td>Range: All year (WFL) Most abundant: presumed Spring + Summer with spawning adults</td>
<td>Range: Offshore shelf, demersal eggs</td>
<td>Optimum: All hatch when &gt; 27 C</td>
<td>Range: Presumed same as spawning adults (demersal up?2)</td>
<td>Range: 16</td>
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<td>(0.31-0.33 mm diameter)</td>
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<td>Citations</td>
<td>16</td>
<td>18</td>
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<tr>
<td>Larvae and pre-</td>
<td>Range: All year (WFL) Most abundant: Summer-Fall (SC) Spring-Summer (WFL) Summer-Fall (TX)</td>
<td>Range: Isotherm and up to 40 km offshore of WFL Most abundant: Southwest FL shelf (WFL)</td>
<td>Range: 15-35 C Optimum: 30-35 C @ 28-32 ppt 21-26 C @ 35 ppt Mortality higher at 35 C</td>
<td>Range: 0-43 ppt Optimum: 10-22 ppt</td>
<td>Range: 1-50 m (WFL) Most abundant: ≤ 23 m</td>
<td>Phytoplankton, zooplankton Presume fishes and invertebrates (planktones + epibenthos)</td>
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<td>Recruitment through passageways or open shorelines, Spring = Fall (WFL, TX); primarily on flood tides and at night</td>
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<tr>
<td>settlement</td>
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<tr>
<td>Developmental stages: 5 nauplius 3 proteozoa 3-4 mysic 1-2 postlarvae</td>
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<td>1, 9, 11, 13, 18, 23, 67</td>
<td>13, 33</td>
<td>18, 28, 33, 67, 68</td>
<td>28, 67, 69</td>
<td>13, 16</td>
<td>18</td>
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<td>Habitat Associations and Interactions</td>
<td>Selection</td>
<td>Growth</td>
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<td><strong>Late postlarvae</strong></td>
<td>Range:</td>
<td>Range: coastsides and estuaries from NC to TX. Most abundant: southern TX + EFL + WFL. Rare elsewhere</td>
<td>Range: 6-38 C, Optimum: 24 C (SC) &gt; 28 C (WFL) 18-25 C (TX)</td>
<td>Range: 0-65 ppt, Optimum: 30 ppt (SC), 80% survival @ 17-50 ppt + 22-24 C</td>
<td>Range: 2.5-6.0 moll Tolerates diurnal lows of 0.2 ppm for several hr (WFL)</td>
<td>Range: Seagrass, aneloids, small crustaceans, shrimp, bivalves</td>
<td>Fishes such as spotted seahorse, red drum, sand seatrout, snook and snapper, eagle perch, Atlantic croaker, flounder, shrimp, bivalves, and gastropods.</td>
<td>Densities highest in or near seagrasses, low in mangroves, near zero or absent from marshes or low salinity areas. May prefer Halodule over Thalassia in small, but dense seagrass beds. May prefer coarse sand/shell/mud. Nocturnal.</td>
<td>12, 24, 30, 36, 42, 48, 56, 62, 63, 65, 69, 73, 76</td>
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<td>Range:</td>
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<td>Range: 6-38 C, Optimum: 14-30 C</td>
<td>Range: 2.5-5.0 moll Tolerates diurnal lows of 0.2 ppm for several hr (WFL)</td>
<td>Range: 1-65 m, Most abundant: 16-50 m (WFL, TX)</td>
<td>Range: Anneloids, small crustaceans, shrimp, bivalves</td>
<td>Fishes such as spotted seahorse, sand seatrout, grey snapper, mullets, red drum and groupers, possibly Atlantic croaker and seahorse.</td>
<td>Densities highest in or near seagrasses, low in mangroves, near zero or absent from marshes or low salinity areas. May prefer coarse sand/shell/mud. Nocturnal.</td>
<td><em>Avoid cold stayning by migration to deeper water; low predation offshore.</em></td>
<td>Catch and effort at offshore flats in fishing season, correlated with subsequent landings.</td>
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<td>2, 4, 42, 51, 67, 69, 72</td>
<td>6, 12, 51, 55, 65, 67, 69, 72</td>
<td>6, 63, 65, 69</td>
<td>63, 69</td>
<td>35, 45, 58</td>
<td>11, 23, 25, 47, 59, 60, 67</td>
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<td><strong>Sub-adults</strong></td>
<td>Range:</td>
<td>Range: NC to TX. In open water or seagrass beds in estuaries or algal coastlines, and nearshore shelf</td>
<td>Range: 6-38 C, Optimum: 10-45 ppt</td>
<td>Range: 2.5-5.0 moll Tolerates diurnal lows of 0.2 ppm for several hr (WFL)</td>
<td>Range: 1-65 m, Most abundant: 25-45 ppt</td>
<td>Range: Annelids, small crustaceans, shrimp, bivalves</td>
<td>Fishes such as spotted seahorse, sand seatrout.</td>
<td>Densities highest in or near seagrasses, low in mangroves, near zero or absent from marshes or low salinity areas. May prefer coarse sand/shell/mud. Nocturnal.</td>
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Citations for pink shrimp habitat table


