



Longnose Spider Crab shells found along Quintana Beach

Article by Taylor Bennett

If you have been to Quintana Beach lately you may have noticed weird spiky shells spread along the shore. While surveying for non-breeding shorebirds along Quintana Beach, I came across these shells and figured out that they belong to Longnose Spider Crabs. These crabs are actually part of the decorator crab group. They are often yellow or brown with long spider like legs which is where the spider in its name comes from, 6 curved spines along its sides and back, and one long forked rostrum or nose between its two eyestalks.

#### Habitat and Food

The Longnose Spider Crab can be found in coastal and estuarine habitats. They are very tolerant to salinity and temp. They are benthic species meaning they live along the bottom of water bodies. Juveniles prefer seagrass beds where they can hide easily from predators and adults typically live in open sandy areas. The native range of this particular crab is Cape Cod, Southeastern Texas, Bahamas, and Cuba. They are a type of scavenger, so they feed on plant, animal tissue, and detritus or dead stuff. They can also feed on the transparent part of jellyfish.

#### Protection

These are actually a type of decorator crab; however only the juveniles cover their shells, while the adults keep their shells clean. This particular carapace I found was covered in algae and eelgrass, so it must have been a juvenile. As juveniles, they are most at risk of getting predated by larger fish and birds, due to their small size. They are adapted with Velcro-like hairs on the back of their carapace called setae. With these hairs they can easily attach plants, algae, and small invertebrates to help them blend or camouflage themselves within their environment. The plants and algae are often unpleasant to eat, so predators are more likely to spit the crab out. Unlike other crabs, their pincers are incredibly small and weak, so they rely on camouflage to protect them. During their larval stages, they can actually be seen clinging on to the inside of cannonball jellyfish. When they are larvae their symbiotic relationship with the jellyfish is

commensal. Commensal is defined as one species benefiting from the other species while the other species is not benefiting, but also not being harmed. The larvae uses the jellyfish for food, protection, and transportation, while the jellyfish doesn't benefit from the crab larvae. This type of relationship is, unfortunately, short lived because when the larvae molts into a large juvenile the jellyfish then becomes food for the crab.

### Lifestyle and Ecology

Similar to other crabs, they need to molt in order to grow. They often molt in very large groups called pods in the fall. In the winter, they are known to hibernate in dense patches. They typically mate in the spring. Females tend to be smaller than males. Like other crabs, you can easily tell them apart from each other by looking at the abdomen. The females are broader and flexed to brood eggs. They reproduce through fertilization. Once the male fertilizes the eggs, they develop into larvae. The larvae go through three planktonic stages before it molts into a juvenile within nine days.

### Photo captions:

Longnose spider crab carapace: Pictured is a Longnose Spider Crab carapace found while surveying for non-breeding shorebirds along Quintana Beach, Texas. Photo taken by Taylor Bennett.

Spider crab setae: Zoomed in photo of the Velcro-like hairs located on the carapace of the Longnose Spider Crab. Photo taken by Taylor Bennett