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Spiders in oyster shells: shellfish farming benefits an endangered terrestrial species

Along the shore of Mont-Saint-Michel Bay in western France, large numbers of non-native Pacific oyster (*Crassostrea gigas*) and native blue mussel (*Mytilus edulis*) shells are deposited as waste from marine aquaculture operations. The resulting “shell beds” (above) cover hundreds of hectares and form a distinctive habitat that over time has become integrated into the salt marsh vegetation (mostly native *Atriplex portulacoides*) through sediment accretion. The shell beds appear in the form of banks, typically 1–2 m high, up to 200–300 m long, and 50 m wide. Both sexes of an endangered wolf spider (*Arctosa fulvolineata*) use the shells as a refuge and as breeding habitat (below). During May 2021, the species was found on several occasions near Vivier-sur-Mer along the center of the Bay, hiding under the shells during the day and hunting for amphipods at night. *A. fulvolineata* likely uses shells as a daytime shelter during high tides, as reported for intertidal spiders (*Desis* spp) on South African coasts. While the importance of anthropogenic resource subsidies for predatory spiders has been known for decades, examples documented in the scientific literature remain rare.

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