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Range extension for the barrel shrimp *Gnathophyllum panamense* (Malacostraca: Decapoda: Pleocyemata: Caridea: Gnathophyllidae) along the Ecuadorian coast

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Abstract

The presence of the barrel shrimp *Gnathophyllum panamense* is reported for the continental coast of Ecuador for the first time.

Keywords. Barrel shrimp, *Gnathophyllum*, distribution, southern range extension.

Resumen

Se documenta la presencia del camarón *Gnathophyllum panamense* en la costa continental del Ecuador por primera ocasión.

Palabras Clave. Camarón barril, *Gnathophyllum*, distribución, rango de extensión.

Figure 1: ***Gnathophyllum panamense,***

Gnathophyllum panamense, the barrel shrimp, is reported for the first time for the continental coast of Ecuador. This small, brightly-colored crustacean has been previously reported from the Galapagos Islands [1] but is not considered common anywhere. Hundreds of hours of intertidal surveys between 1990 and 2010 have resulted in only two sightings of this crustacean on the rocky outcrop at the southern end of the beach associated with the town of Puerto Cayo, Manabí Province (1°22'04"S, 80°44'24.34"W). In the intertidal zone, in less than 10 cm water depth, this species has been observed twice in recent years (26 Sept. 2007, 30 Sept. 2008). The local substrate is sedimentary/metamorphic interspersed with sandy-bottomed pools including silt accumulations in quiet areas. Many large loose stones provide cover for a wide variety of benthic organisms. This is consistent with reported habitat preference for this shrimp except for the fact that it is normally encountered at somewhat greater depths—low littoral to 20 m [1]. As neither of the reported observations coincides with any important ENSO event, the presence of this crustacean is not considered an anomaly; its observation simply represents the documentation of a rare species at or near the extreme southernmost point of its natural range. Based upon well established understanding of marine biogeographical provinces for the eastern Pacific, the observation of *G. panamense* at this site should not come as a surprise. The species was originally described from Panama and has a broad distribution within the Panamic province; its northernmost occurrence is documented in the Gulf of California relatively near the boundary of the Californian province but not extending into it. This species appears to be truly endemic to this one eastern Pacific province. Although there are discrepancies as to the exact position of the boundary between the regions known as the Panamic and Peruvian Provinces (Punta Aguja, Peru by [2]; Santa Elena Peninsula, Ecuador by [3]; Punta Parinas, Peru by [4]; Punta Negro, Peru [5]), the site reported here lies well within the Panamic province and the presence of this species along rocky outcrops in the sublittoral zone along the central and

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northern Ecuadorian coast should be expected. Considering that defining such biogeographic provincial boundaries is often complicated by seasonal variability, more widespread intensive searches of appropriate habitat should yield more details about the true distribution of this poorly known intertidal to subtidal benthic organism.

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