

Observations on the distribution and density of the rare and poorly known flower urchin, *Toxopneustes roseus*, (Phylum Echinodermata, Class Echinoidea, Family Toxopneustidae) in Ecuador.

Kelly Swing*

Colegio de Ciencias Biológicas y Ambientales, Universidad San Francisco de Quito
Diego de Robles y Vía Interoceánica, Quito, Ecuador
Casilla postal: 17-1200-841

*Autor principal/Corresponding author, e-mail:kswing@usfq.edu.ec

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Abstract

A southern range extension is reported for *Toxopneustes roseus*, the flower urchin, along the central continental coast of Ecuador. Indications are provided for likelihood of encountering this species.

Keywords. flower urchin, *Toxopneustes*, range extension, densidad

Resumen

Se reporta una extensión de rango hacia el sur para la costa continental del Ecuador para *Toxopneustes roseus*, el erizo de mar flor. Se indica la probabilidad de encontrar esta especie.

Palabras Clave. erizo de mar flor, *Toxopneustes*, extensión de rango, densidad



Figure 1: *Toxopneustes roseus*

The distribution of *Toxopneustes roseus*, the flower urchin, has been previously described as extending from the “Gulf of California to Ecuador and the Galapagos Islands” [1], with the southeasternmost occurrence previously documented for Isla de la Plata [2]. Reported depths occupied by this echinoderm vary widely. Caso [2] reviewed 93 museum specimens collected at depths ranging between the intertidal zone and 20 fathoms (36m) but Hickman [1] describes its distribution as “low inter-

tidal to 20m”. This species has been observed infrequently in tide pools of less than 25cm depth at low tide along the Ecuadorian coast among rocky outcrops in the province of Manabí at the southern end of the town of Puerto Cayo (1°22'04”S, 80°44'24.34”W), which represents a range extension within the Panamic marine province. In Galapagos, well over one thousand hours of observations using snorkeling techniques from 1997-2010 confirm that this species is quite uncommon in water less than 4m deep. A few thousand hours of experience in various tide pools along the entire coast of Manabí since 1990 confirm this report to be a more reliable representation of the distribution of *T. roseus* than previous publications. In all cases, flower urchins are reported to occur at very low densities [1] and this is confirmed here by extensive field observations. Encounter rate for this species is certainly less than one individual per 100 hours of searching, whether on foot in appropriate shallow habitats or snorkeling.

References

- [1] Hickman, C. 1998. “A Field Guide to Sea Stars and Other Echinoderms of Galapagos.” *Galapagos Marine Life Series*. Sugar Spring Press.

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