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Scientific note

## El Niño invaders: the occurrence of the by-the-wind sailor *Velella velella* (Linnaeus, 1758) in the southeastern Pacific

(Cnidaria, Hydrozoa)

## Juan Francisco Araya & Juan Antonio Aliaga

## References Araya, J. F., Aliaga, J. A. & Araya, M. E. 2016. On the distribu-

Velella velella (Linnaeus, 1758) is a zooxanthellate pleustonic jellyfish with epipelagic medusae, distributed in most tropical to temperate oceans. They are mostly recognized by their blue floats and conspicuous triangular chitin sails, which help them to navigate in the surface of the seas. Recent large-scale blooms of this species, along with other gelatinous species, have occurred in the Mediterranean, northeastern Atlantic and Pacific Ocean in 2013 and 2014; however in the southeastern Pacific it has been cited just once, as Velella spirans (Forsskål, 1775), at Hueicolla (40°08'S, 73°41'W) southern Chile (Moyano & Valdovinos 1984). Eight specimens of V. velella washed ashore at Rocas Negras Beach (27°08'34" S, 70°53'39" W), Caldera, Región de Atacama, northern Chile were collected during surveys documenting macroinvertebrates in the region. This finding constitutes the second record in the southeastern Pacific and the northernmost record of this species in Chile, extending its previous geographical distribution in the country in about 1467 km. All of the studied specimens were small (less than 26 mm) with a rectangular and somewhat S-shaped pneumatophore. All of them corresponded to the R form of Schuchert (2010), with a sail running from NE to SW. Since this species is clearly limited to superficial waters, its geographical distribution is subject to the circulation patterns of dominant surface currents and winds. The occurrence of recent El Niño Southern Oscillation (ENSO) events disrupts the dominant Humboldt Current in the area and allows episodic incursions of these tropical immigrants and related fauna along the coasts of Chile (see for example Araya et al 2016). Interestingly, no specimens of the typically associated Janthina snails or Glaucus sea slugs were found together with the present V. velella.

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**Fig. 1a.** *Velella velella* alive specimen collected at Caldera  $(27^{\circ}S)$ ,  $\triangleright$  Chile. **b.** Records of *V. velella* in the southeastern Pacific; the star denotes the present record and the circle the previous record of Moyano & Valdovinos (1984).

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