

## ***Lineus acutifrons* Southern, 1913 is not an extinct species... but neither is a *Lineus*: redescription from Spanish specimens**

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*Lineus acutifrons* was described by Southern in 1913 from incomplete specimens collected in sand near the low water mark, in two places at western Ireland. The species was listed by Gibson (1982, 1994) who noted that the species has never been fully described. Thus, for the last 96 years the only knowledge of the species arises from the original description, and the species would be considered as extinct.

It is only with the sampling campaigns related to the study of the macroinfauna of the beaches affected by the 'Prestige' oil spill (Project VEM2004-08544) when specimens of a red nemertean were collected at four of the eighteen beaches surveyed at the Galician coast (NW Spain) (Figure 1; see Junoy *et al.* 2005 for sampling details). Additional living specimens were collected in the campaigns related to the study of the nemertean fauna of the "Islas Atlánticas de Galicia" National Park (Project 79/2003).

The external morphology of these specimens fits well with the characteristics described by Southern (1913) for *Lineus acutifrons*: pink to bright red coloration, without differences between the dorsal and ventral surfaces; head acutely pointed in front, distinctly marked off from the body by a well defined constriction; eyeless. Details of the internal morphology also coincide with those described by Southern, independently of their taxonomic value (Southern, 1913: 8-9). The species is photographed for the first time: up to date, the external appearance of this species is only based on Southern's drawings (Southern 1913: figures 12–14) and those redrawn by Gibson (1982: figure 20A; 1994: figure 21A).

In the communication at the 5<sup>th</sup> International Symposium on Sandy Beaches, the anatomy of this Pilidiophora was described and its taxonomic position discussed. Paper dealing on the species is recently published (Puerta *et al.* 2010).

The species was collected only in the beaches that are more influenced by the seasonal upwelling located in the NW coast of Iberian Peninsula (Bode *et al.* 1996); these beaches have the highest macrofaunal density of the Atlantic coast of Spain (Lastra *et al.* 2006; Junoy, personal data). The nemertean *Lineus acutifrons* could be a useful bioindicator species of beach quality, as is only present in

beaches where macrofauna density is high. As opposed to the other nemertean found in the same beaches (Herrera-Bachiller *et al.* 2008), *Psammamphiporus elongatus*, *Lineus acutifrons* is present in such low densities that it is not possible to assess whether it has been affected by Prestige oil spill.

### References

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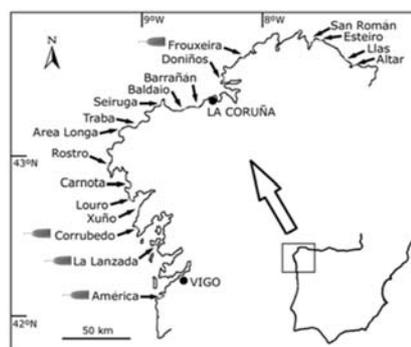


Figure 1: Map showing location of sampled beaches. Beaches where *Lineus acutifrons* was collected are marked with a worm end with caudal cirrus.

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