

A crowded apartment building: the widespread *Amathia verticillata* (delle Chiaje, 1822) and its associated nudibranchs fauna (Mollusca, Gastropoda)

Giulia Furfaro^{1,2*}, Egidio Trainito³, Michele Solca^{1,2}, Alessio Mauro¹, Emanuele Mancini^{1,2}

¹Department of Biological and Environmental Sciences and Technologies (DiSTeBA), University of Salento, Via Prov.le Lecce-Monteroni, 73100, Lecce, Italy

²National Biodiversity Future Center (NBFC), 90133, Palermo, Italy

³Genoa Marine Centre Stazione Zoologica Anton Dohrn, Piazza del Principe 4, 16126, Genoa, Italy

Presenting author: Giulia Furfaro; giulia.furfaro@unisalento.it

Abstract (Maximum 250 words)

The Mediterranean Sea is a hotspot of biodiversity currently threatened by global warming and increased naval traffic, two of the major factors negatively affecting Mediterranean biodiversity and significantly altering its endemic and autochthonous fauna. Considering introduction and spread of Non-Indigenous Species (NIS) are among the main threats to biodiversity worldwide, the early detection and monitoring of NIS are key to effective conservation strategies. The bryozoan *Amathia verticillata* (delle Chiaje, 1822), described from the Gulf of Naples, is currently considered cryptogenic and has a worldwide distribution. This hermaphroditic species is capable of reproducing both sexually and asexually, characteristic that has proven effective in the rapid colonization of different areas. *Amathia verticillata* can live on natural and artificial substrates and this plasticity, coupled with its ability to be a species 'bearer of other species', makes it very useful in early detecting new NIS and to deepen knowledge on patterns of dispersal thorough the Mediterranean Sea. Even if scattered studies have highlighted the link between *A. verticillata* and some nudibranchs, to date a comprehensive knowledge of the Nudibranchia associated fauna is still lacking. For this reason, investigations have been carried out in different anthropized area in southern Italy, together with broad bibliographic research. Nine species revealed associated to *A. verticillata* and, among them, some are rare or very rare with one being reported only twice for the whole Mediterranean basin. Furthermore, it is noteworthy that most of the associated nudibranchs have an Atlantic/Mediterranean origin, suggesting *A. verticillata* could share the same origin.