## THE ISCHIA DECLARATION

## MANAGEMENT OF BIOINVASIONS IN THE MEDITERRANEAN SEA

## THE WAY FORWARD

The number of non-indigenous species (NIS) is substantially greater in the Mediterranean than for other European Seas - coastal habitats comprising native species alone are now a rare occurrence. With increased shipping, recreational boating, aquaculture and the Suez Canal, the number of NIS is expected to substantially grow in the region. The individual and synergistic impacts of the majority of the known invasions have already adversely affected the conservation status of many native species, critical habitats, the structure and function of ecosystems and the availability of natural resources. Some NIS are noxious, poisonous, or venomous and pose clear threats to human health.

As the bioinvasions in the Mediterranean Sea are creating an environmental and conservation crisis, we, the participants in the EuroMarine-sponsored workshop, convened in Ischia, Napoli, May 4 - 5, 2016 and debated the management challenges. We believe that although large numbers of NIS have been recorded from the Mediterranean Sea, it is not too late to act with effective participation of all relevant sectors.

Valuable efforts\* are being made to improve NIS inventorying, monitoring and data sharing. However, to reduce the risk of new introductions and the further spread of NIS already present in the Mediterranean Sea, a strategic focus on effective, sciencebased trans-boundary management of bioinvasions is needed.

We, the signatories, call to:

- i) employ a **Mediterranean-wide** harmonized approach and protocols when managing bioinvasions;
- ii) enact a **one authority approach**, both nationally and regionally, appropriately funded to achieve stated targets;
- iii) focus on **preventing invasions** (i.e., 'pre-border' management of invasion vectors and pathways);
- iv) apply the existing voluntary Directives/Regulations/Conventions/ Guidelines and codes of practice with compliance, monitoring and enforcement, until obligatory pan-Mediterranean legislation is implemented;
- v) exercise the **precautionary approach** (i.e., act even when regional data/information is limited);

- vi) embed **risk assessment** (risk analysis and management) into the management at the appropriate level of action (i.e. at vector, pathway, habitat or species, as relevant) and make the information available through clearing-house mechanisms;
- vii) conduct **multi-vector management**, taking into account future changes in **vector dynamics**, **climate scenarios** and environmental **changes due to human pressures**;
- viii) collect post-introduction information on **bio-ecological features** and **impacts** of NIS and make it available through clearing-house mechanisms;
- ix) incorporate **lost opportunities** (established NIS) in future *novel* ecosystems.

## "...introduced species undermine in an irreversible way everything that has been done to protect biodiversity, whether through the protection of species or the protection of habitats." (Boudouresque and Verlaque, 2005).

\*Decision IG.22/12 - Updated Action Plans Concerning "Cetaceans, Coralligenous and Other Calcareous Bio-concretions, and Species Introductions and Invasive Species; Mandate for update of the "Action Plan on Marine and Coastal Birds" and revision of the "Reference List of Marine and Coastal Habitat Types in the Mediterranean" UNEP(DEPI)/MED IG.22/28 (Decision IG.22/12).

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