BirdLife Malta recommendations on the Intent and Objectives for the Extension of the Action Plan for the management of Invasive Alien Species of Union Concern to include five additional species

16 July 2024

BirdLife Malta welcomes the initiative to develop an action plan for the management of Invasive Alien Species. The inclusion of the five additional species, which comprise of three species of crayfish and two species of mosquitofish, is an important step towards the management of IAS of Union Concern as per Regulation (EU) 1143/2014. These species are some of the most successful and destructive freshwater IAS, putting at risk the integrity of freshwater ecosystems. Detection of such species calls for immediate action for their control and eradication and to protect sensitive freshwater communities. Even so, these invasive species are now well established across the Maltese islands, owing to their opportunistic ability to quickly exploit resources in an environment with few to no competitors. For example, the first local record of the red-swamp crayfish, *Procambarus clarkii*, dates back to 2016 and has now spread to the major freshwater systems[1]. This means that it took a staggering period of eight years to initiate the process of devising an action plan for the management of such a destructive IAS. An eradication attempt for this species has been conducted in the past, specifically through an EU-funded restoration project in the Fiddien valley system which involved the mechanical excavation to remove sediments containing *P. clarkii* burrow systems and eggs[2]. Whilst we acknowledge this attempt, we believe that IAS management and intervention is not being given enough attention in a timely manner.

In line with the first objective of the Action Plan, concerning the removal, control or containment of populations of IAS, we would like to stress the importance of making sound scientific-based eradication attempts followed by collection of information on their effectiveness. For example, prior to any eradication attempt, population size estimates and distribution of IAS should be drawn up. In the case of the Fiddien mechanical excavation, only one similar attempt have been made in the past and which have also failed. Moreover, many efforts to eradicate invasive species often apply multiple methods rather than a single one. In addition, no information on effectiveness of the attempt was collected, hence future attempts at eradication should incorporate effective monitoring to inform future actions[2].

As for the third objective, where enhancement of the current surveillance and monitoring system for the detection of IAS is envisaged, we would like to add that monitoring should include a thorough understanding of the impacts on native communities. For example, understanding and monitoring the impacts on the population of the only amphibian species in Malta, the painted frog, *Discoglossus pictus*, and the threatened endemic freshwater crustacean sub-species, the Maltese freshwater crab *Potamon fluviatile* ssp. Lanfrancoi should

[1] Deidun, A., Sciberras, A., Formosa, J., Zava, B., Insacco, G., Corsini-Foka, M., & Crandall, K. A. (2018). Invasion by non-indigenous freshwater decapods of Malta and Sicily, central Mediterranean Sea. Journal of Crustacean Biology, 38(6), 748-753.

[2] Caruana, A., Camilleri, B., Farrugia, L., & Jones, J. P. (2024). Mechanical excavation of wetland habitat failed to eradicate invasive American red swamp crayfish (Procambarus clarkii) in Malta. Ecological Solutions and Evidence, 5(2), e12325.

be a priority. *D. pictus* is known to be predated by *P. clarkii* and should thus be used as an indicator species for the success of eradication attempts.

Finally, whilst we understand that the Action Plan for the management of Invasive Alien Species of Union Concern is focused primarily with the management of the species listed in Regulation (EU) No 1141/2016 pursuant to Regulation (EU) No 1143/2014, we believe that local management of IAS should go above and beyond these regulations. For instance, the Atlantic blue crab *Callinectes sapidus* is spreading across the Maltese coastline at an alarming rate and this species is known to be among the worst invasive species introduced into the Mediterranean. The species, which is more aggressive and resilient than native crabs, reproduces at a very high rate and is driving the disappearance of many endemic species, including bivalve molluscs, on which it feeds[3]. Whilst we acknowledge that this species is not yet listed as an IAS of union concern in Regulation (EU) No 1141/2016[4], we believe that we should not wait for such regulations to come into play in order to start taking actions, including controlling the spread of this IAS.

On a final note, we firmly believe that the action plan should also include actions on how to restore damaged ecosystems after being impacted by IAS. Unfortunately, the introduction of IAS is further worsening the fragility of our ecosystems, which are being threatened by other numerous anthropogenic impacts. Restoration efforts should also be integral to the management plan of IAS given that healthy ecosystems equates to more resilient ecosystems, reducing the probability of re-introducing or introducing of IAS. Generally, invasive species must be controlled to some threshold level either prior to or in conjunction with restoration activities. To ensure long-term success, restoration and rehabilitation efforts need to emphasize building ecosystem resilience and resistance to future invasions[5].

[3] Deidun, A., Galdies, J., Marrone, A., Sciberras, A., Zava, B., Corsini-Foka, M., & Gianguzza, P. (2022). The first confirmed record of the Atlantic blue crab Callinectes sapidus Rathbun, 1896 (Decapoda, Brachyura) from Maltese waters.

[4] A risk assessment for *C. sapidus* was approved in March 2022 by the Scientific Forum established under Regulation 1143/2014 and the next update of the Union List will take place in 2024 at the earliest (Source: https://www.europarl.europa.eu/RegData/questions/reponses_qe/2023/002240/P9_RE(2023)002240_EN.pdf)

[5] Poland, T. M., Patel-Weynand, T., Finch, D. M., Miniat, C. F., Hayes, D. C., & Lopez, V. M. (2021). *Invasive species in forests and rangelands of the United States: a comprehensive science synthesis for the United States forest sector* (p. 455). Springer Nature.