

Course description

This course is developed within the framework of the HORIZON Europe project GuardIAS, “Guarding European Waters from Invasive Alien Species (IAS)”. GuardIAS focuses on aquatic invasive alien species, aiming to improve the detection and prevent the spread of invasive alien species in both marine and freshwater habitats using a range of novel methods. Moreover, the project works also to increase the knowledge transfer between the scientific community and the society. For this purpose, GuardIAS has dedicated objectives and tasks directed to education and training, public engagement and raising awareness.

This course falls within the objective of education and knowledge transfer. It is the first of a series of five Massive Online Open Courses (MOOCs) tackling the issue aquatic IAS and covering relevant aspects for their effective management. The GuardIAS MOOCs deal with the following topics: (i) IAS prevention, (ii) early detection and monitoring, (iii) predicting and prioritizing for management, (iv) eradication and control of aquatic IAS, (v) mitigating IAS impacts to threatened species.

This second MOOC is focused on the early detection and monitoring of aquatic IAS. The course opens with a brief overview on some general aspects: what happens when detection fails, what mechanisms are there to detect the failure and, therefore, the introduction of alien species and which are the European regulatory requirements on this regard. Methodological aspects are covered in the second teaching unit and, finally, the applicability, challenges and limitations of the main approaches are explored.

Enrol in this MOOC, get the certificate and become, you too, a Guardian!

Course programme

1. Introduction to the course
 - a. GuardIAS project and MOOCs
 - b. Course navigation
 - c. Course index
 - d. Course objectives
2. Teaching Unit 1: Surveillance: firewalls in IAS management
 - a. TU1.1 Alien species: how can we detect them?
 - b. TU1.2 Detecting an invasion: looking for the right terms
 - c. TU1.3 Legal commitment and compliance: what does legislation say on the matter?
3. Teaching Unit 2: Early detection and monitoring
 - a. TU2.1 Approaches in early detection & monitoring
 - b. TU2.2 Designing a monitoring campaign
 - c. TU2.3 Survey performance and uncertainty
4. Teaching Unit 3: Applicability and limitations
 - a. TU3.1 Implementation of early detection and monitoring
 - b. TU3.2 Reporting, baseline inventories and databases
 - c. TU3.3 Detected ... and now?
5. Closure
 - a. Wrapping up
 - b. What comes next

