

DETECT: METHODS

Effective monitoring tools and survey designs are used to detect new species soon after they are introduced for the least amount of effort and cost.

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- Multiple methods are used collect and detect aquatic invasive species and vary by species type (fish, plant, invertebrate).
 - Detection methods also vary in cost, feasibility, sensitivity (e.g., ability to detect species at low abundance), and effectiveness.
 - Methods are evaluated for their effectiveness to ensure efficient use of limited resources.
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Methods used for early detection vary depending on the species targeted and available resources. Methods may include the gear that is used to sample, or collect, species (or their DNA), as well as sampling design (i.e., which sites are sampled, how many sites are sampled, how many times, and how many samples are collected). Research, development, testing and implementation of various detection methods are ongoing.

Ideally, early detection methods and approaches will detect new aquatic invasive species while they are still rare for the least amount of effort and cost. A comprehensive early detection program may include a strategy for determining which methods are used and will be most effective. The [Aquatic Invasive Species Interstate Surveillance Framework for the U.S. Waters of the Great Lakes \(the Framework\)](#) provides guidance on early detection methods.

ISSUE

[Aquatic Invasive Species](#)

TOPIC

[Detection](#)

TYPE

[Strategy](#)
