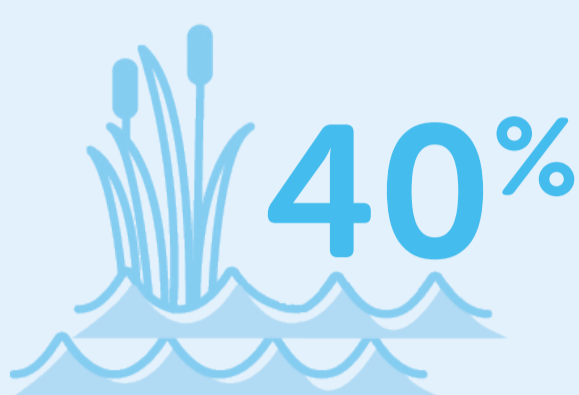


The benefits of eDNA as a survey technique

Environmental DNA, or eDNA, describes the genetic material that can be obtained from an environmental sample such as water, sediment, snow, or soil and can be used for species detection.

Did you know...?



40%
of species live and breed in wetlands globally.²



Over 70,000
species of animals, plants, fungi and single-celled organisms are found in the UK.¹



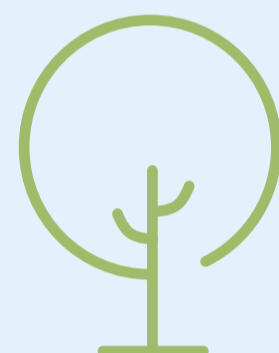
In total, over 100,000
species of plants and animals live in freshwater habitats.³

Soils are home to a

1/4 of Earth's species.

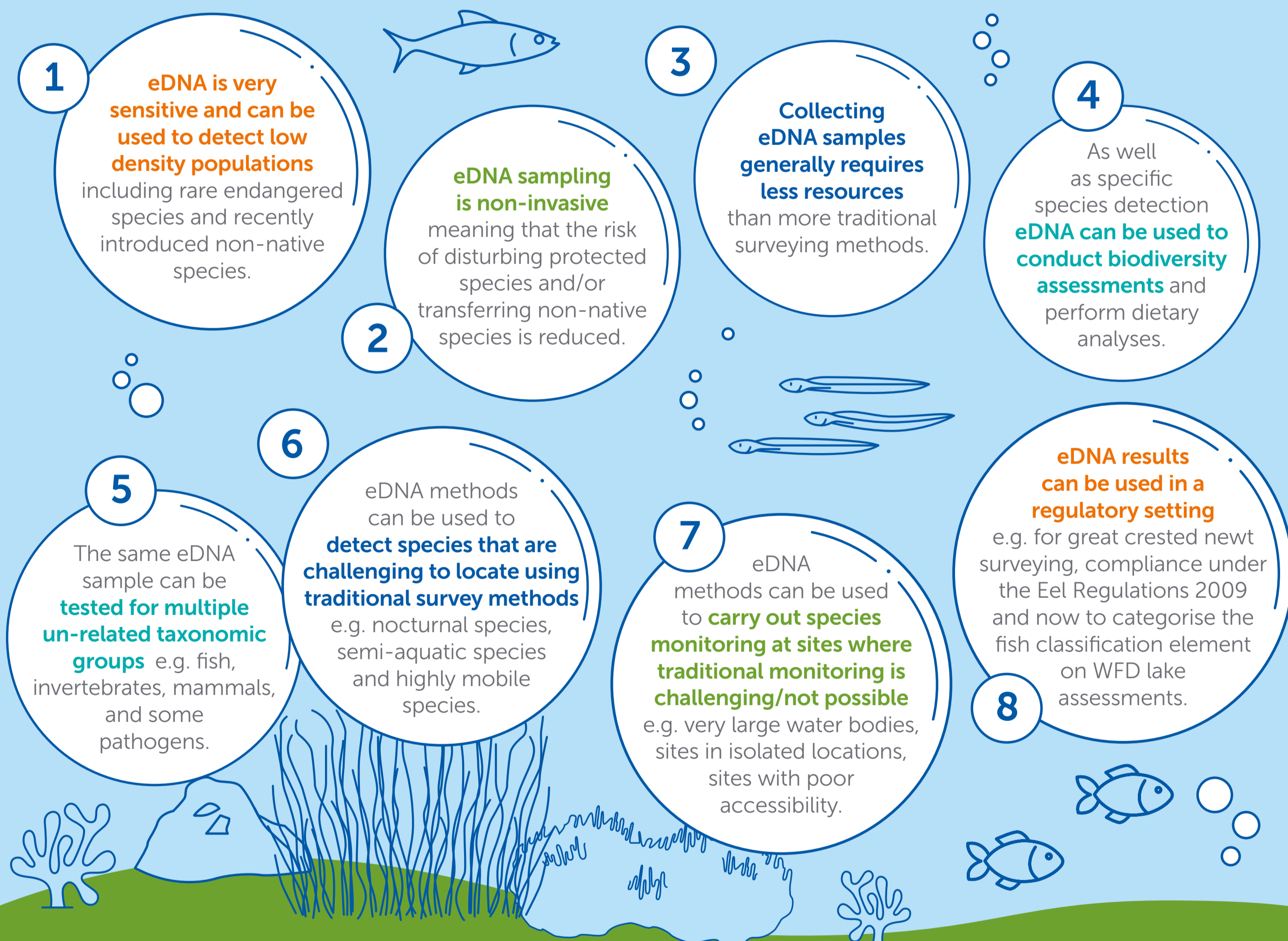
From earthworms to the less-known tardigrade and many undiscovered species.⁴

Only about 1%



of the microorganisms found in soil have been identified so far - our soils are one of the largest reservoirs of microbial diversity on Earth; this includes many single-celled organisms, such as bacteria and archaea, as well as certain fungi too.⁵

Here are 8 benefits of choosing eDNA as a survey technique



How APEM are using eDNA as part of our survey services

We support clients with an extensive range of services, including:

- eDNA implementation, survey design and data interpretation
- Environmental monitoring programmes
- Environmental assessments
- Freshwater and marine macroinvertebrate analysis
- INNS monitoring and management
- Aquatic pathogen management and monitoring advice (including the detection of some species using eDNA)
- Biosecurity advice and action plan production
- Water quality monitoring and management
- Microbial source tracing
- Fisheries assessment and data modelling
- Fisheries science and management
- Fish rescue, removal, relocation, and stock assessment
- Fish screening
- Terrestrial ecology services
- Biodiversity and protection of rare species
- Research and development, including producing articles for publication

APEM are a global environmental consultancy providing independent advice and guidance to support government and environmental regulatory guidelines.

Find out more at www.apemltd.com

¹ UK species | Natural History Museum (nhm.ac.uk) <https://www.nhm.ac.uk/our-science/data/uk-species.html>
² Wetland wildlife | WWF <https://www.wwf.org.uk/discover-wetlands/wetland-wildlife/>
³ Freshwater Biome Facts: Freshwater Habitats, Animals & Plants (activewild.com) <https://www.activewild.com/freshwater-biome/#:~:text=In%20total%2C%20over%20100%2C000>
⁴ 10 Soil Facts | 2021 Update | Soil Association <https://www.soilassociation.org/causes-campaigns/save-our-soil/10-soil-facts/>
⁵ 10 Soil Facts | 2021 Update | Soil Association <https://www.soilassociation.org/causes-campaigns/save-our-soil/10-soil-facts/>