

# BIO-INDICATORS

- **Biological indicators** are species that can be used to monitor the health of an environment or ecosystem. They are any biological species or group of species whose function, population, or status can reveal what degree of ecosystem or environmental integrity is present.
- A **biological monitor**, or **biomonitor**, can be defined as an organism that provides quantitative information on the quality of the environment around it.

- One example of a group of bioindicators are the copepods and other small water crustaceans that are present in many [water bodies](#).
- Such organisms (behavioural) that may indicate a problem within their ecosystem. Bioindicators can be monitored for changes (biochemical, physiological, or tell us about the cumulative effects of different pollutants in the ecosystem and about how long a problem may have been present, which physical and chemical testing cannot.

# Plant indicators

- [Lichens](#) are organisms comprising both [fungi](#) and [algae](#). They are found on rocks and tree trunks, and they respond to environmental changes in forests, including changes in forest structure – [conservation biology](#), [air quality](#), and climate.
- The disappearance of lichens in a forest may indicate environmental stresses, such as high levels of [sulfur dioxide](#), sulfur-based pollutants, and [nitrogen oxides](#).

# Animal indicators and toxins

- An increase or decrease in an animal [population](#) may indicate damage to the ecosystem caused by [pollution](#).
- For example, if pollution causes the depletion of important food sources, animal species dependent upon these food sources will also be reduced in number: [population decline](#).