

Land and sea use change	Resource exploitation	Climate change	Pollution	Invasive alien species
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NatureMetrics Raises Funding with Environmental DNA Tech

Part of the ['Opportunity Blossoms'](#) series on real economy investments in nature

Around 1 million species worldwide – representing 25 percent of known animal and plant groups – are today threatened with extinction. The challenge of measuring how biodiversity – the variety of living organisms in a habitat – changes in response to human interventions is a barrier to deploying the resources needed to protect, manage and restore it. Traditional monitoring techniques are labor intensive and costly. More economic and scalable technologies are therefore a key enabler of more effective interventions.

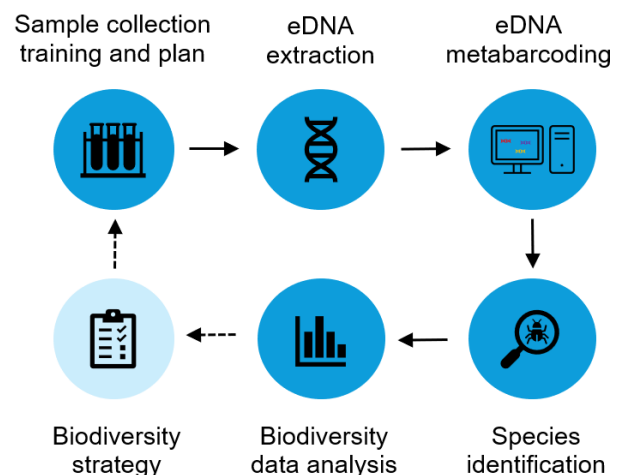
UK-headquartered NatureMetrics uses environmental DNA (eDNA) sampling to provide organizations with biodiversity monitoring services. The company is the market leader in an increasingly competitive sector, raising \$30.7 million since 2014, and supporting clients including Nestle and Anglo American to better understand the biodiversity impacts and dependencies of their operations. As pressure mounts on businesses and governments to gather data on their interactions with nature, services such as those offered by NatureMetrics are becoming increasingly important.

The nature-friendly service

Founded in 2014, NatureMetrics sells a sampling kit for collecting genetic information in situ. With a device from the kit, users gather environmental DNA (traces of DNA that organisms have shed through excrement and cell loss) from water, soil or sediment. The sample undergoes metabarcoding in the company’s labs to extract and amplify the eDNA, which is then compared against an in-house reference library of known genomes. The results show the distribution and relative abundance of species in the original sample location, which then informs a broader biodiversity analysis.

Clients can purchase individual sampling kits and collect data directly, enter a multi-year partnership for ongoing biodiversity monitoring with NatureMetrics, or work with its consultancy service to create a long-term biodiversity strategy.

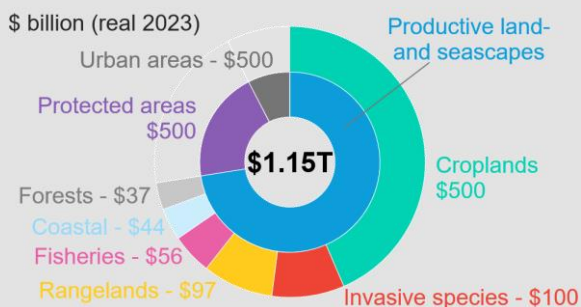
NatureMetrics monitoring service



Source: BloombergNEF, NatureMetrics. Note: Darker blue shows the company’s core offering.

Mitigating nature loss

Biodiversity finance has to rise to an annual \$1.15 trillion by 2030. Data provided by companies such as NatureMetrics is key to ensuring effective spending.



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Nature benefit of eDNA biodiversity analysis

More comprehensive biodiversity surveying allows firms to better understand ecosystems and achieve better results from their interventions. This can range from implementing tailored and more nuanced strategies when restoring habitats, to mitigating biodiversity loss when building a project, to developing better fertilizers.

For instance, NatureMetrics collaborated with engineering consultancy Jacobs on a road-widening project, using eDNA to quantify how ecologically similar newly created woodland was to the area lost. As a result, soil from the road excavation was transferred to the restoration site rather than being discarded.

EDF Renewables and KIMAenergy, an Australian wind developer, piloted NatureMetrics' eDNA service when undertaking environmental impact assessments at offshore wind projects, where it proved more comprehensive, less invasive and faster than typical sea-trawling methods. This identified 70% more fish species than traditional trawling was able to at the EDF site, while eDNA analysis at KIMAenergy's site identified two threatened marine species, which the project developers monitored to minimize disturbance. Nestle Purina PetCare has entered a multi-year partnership with NatureMetrics to assess the impact of seaweed-based biological stimulants on crops and soil health, aiming for dual emissions and biodiversity benefits.

In situ ecological surveys are the conventional method for assessing biodiversity in a habitat. They often fail to identify species with lower abundance and are susceptible to observer bias, expensive, time-consuming and invasive. [Research](#) suggests eDNA sampling can reliably detect invasive species in aquatic habitats in hours, rather than the weeks required by ecological surveys.

A [study](#) on amphibians found eDNA has higher reliability in detecting the presence of species with lower abundance in a habitat, which are at risk of being overlooked by ecological surveyors. The use of eDNA

strengthens results of environmental surveys through quicker detection of species which are harder to visually identify.

Detection rate of amphibian species using ecological surveys and eDNA sampling

Species	Ecological surveys	eDNA	Surveys and eDNA
Pacific chorus frog	100%	80%	100%
Western toad	75%	60%	75%
California newt	55%	55%	65%
California tiger salamander	15%	30%	40%
American bullfrog	35%	35%	35%
California red-legged frog	30%	35%	35%

Darker shading indicates an improvement in detection rate when using a combination of eDNA and surveys over surveys alone. Species listed in order of increasing rarity. Results from 20 pond samples.

Financial performance

NatureMetrics had raised \$30.7 million as of September 2024, including a \$15 million Series B round in 2022. Notable investors include BNP Paribas, Systemiq, 2150 and Ananda Impact Ventures, reflecting the credibility of its founders and viability of eDNA technology.

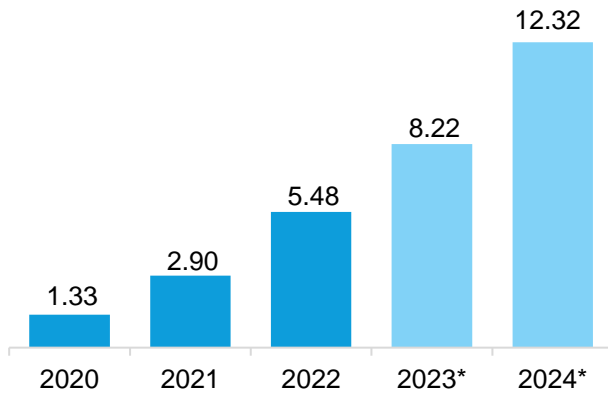
The company had turnover of £4.8 million in 2022 (\$5.48 million), according to Companies House and disclosed to BNEF they have seen 50% revenue growth over the last two years.

With a growing client base, including more than 600 organizations across 110 countries and long-term service agreements, NatureMetrics and its investors have successfully identified a nature-related opportunity and generated cashflow from it. Major clients include Unilever, Nestle, Anglo American, MSC Cruises and Tesco. The diverse client base highlights both the versatility of the technology and future revenue generating potential of the company.

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NatureMetrics' current and estimated future revenue

\$ million



Source: BloombergNEF, Companies House, NatureMetrics.

Note: Figures for 2023 and 2024 are estimates.

Broader opportunities within the sector

The biodiversity monitoring, reporting and verification market has grown rapidly in recent years. In 2023, early-stage startups received \$204 million in funding. While none has achieved the same scale as NatureMetrics, three are introduced below.

Notable competitors of NatureMetrics

Company	Description	Funding
Pivotal	Offers a biodiversity data platform using AI with primary data from satellite monitoring and acoustic data. It does not indicate use of eDNA sampling.	Closed a <u>\$6.5m</u> seed round, with funding from Octopus Ventures and AENU.
Nala	Nature consulting service and biodiversity monitoring platform. It does not offer eDNA sampling services. Partners include BASF.	<u>\$1.7 million</u> in pre-seed funding.
SpyGen	French company using eDNA to monitor biodiversity. It does not provide biodiversity consultancy services. Corporate partners include the WWF and EDF.	No funding information available.

Upcoming regulation on biodiversity reporting and increased uptake of voluntary disclosure are leading more corporates to start quantifying their biodiversity impact and create strategies to mitigate harm. The EU's Corporate Sustainability Reporting Directive

([CSRD](#)) requires companies to report on how they impact biodiversity and levies financial penalties if firms fail to do so. From 2025, firms based in the EU with over 500 employees must disclose. By 2029, around 50,000 companies will report biodiversity data under the CSRD, all of which serve as potential future clients for biodiversity data providers.

The rise of voluntary disclosure of nature-related impacts and dependencies has also driven demand for biodiversity data service companies. The Taskforce on Nature-related Disclosures (TNFD) in 2023 released its 14 [recommended](#) nature-related disclosures as part of its push to encourage reporting. NatureMetrics [claims](#) it can deliver 50% of these disclosures through its services alone. As of September 2024, over 450 companies have committed to adopting the TNFD's recommendations. Multinational pharmaceuticals firm [GSK](#) and cosmetics producer [L'Oréal](#) have set targets to restore and enhance biodiversity, which will require them to measure biodiversity change over time.

Analyst take

Commercial scale eDNA assessment, such as that provided by NatureMetrics, supports companies seeking to make credible claims about their biodiversity impacts and dependencies by monitoring how their operations affect species abundance over time. Currently, there are few standards dictating how companies should quantify biodiversity. However, the mandatory reporting covered by the CSRD and voluntary initiatives such as the TNFD increase the need for rigorous, auditable and scalable biodiversity data, and have presented opportunities for investors.

More from BNEF:

Climate-Tech Companies to Watch 2024: BNEF Pioneers ([web](#) | [terminal](#))

TNFD Release Puts Nature at Heart of Financial Disclosure ([web](#) | [terminal](#))

NatureMetrics was a winner of BNEF's 2024 Pioneers Competition, competing under the Wildcards category.

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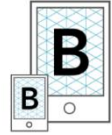
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