FUNDING

Biological collections threatened

Hiatus in US National Science Foundation funding could hamper research.

BY ANNA NOWOGRODZKI

The cabinets of the Field Museum in Chicago hold a collection of eggs that led to one of the most famous conservation discoveries of the twentieth century: that the pesticide DDT was causing widespread nesting failures in birds of prey.

But such specimen troves — which are used to identify species, track diseases and study climate change — have lost a valuable means of support. On 16 March, the US National Science Foundation (NSF) announced that it would indefinitely suspend a programme that provides funding to maintain biological research collections. The agency will honour current grants, but it is not accepting new proposals.

"It's surprising and disheartening," says Christian Sidor, a palaeontologist at the University of Washington in Seattle and a curator at the Burke Museum of Natural History and Culture, also in Seattle. "It rattled through the entire museum yesterday."

He and other researchers are worried because the NSF is one of the only public providers of funds to maintain specimen collections. It awards between US$3 million and $5 million a year in grants for such collections, equivalent to roughly 0.06% of the agency's $7.5-billion budget for the 2016 fiscal year.

Although the phrase 'biological collections' might call to mind images of dusty museum drawers, these resources are as likely to include jars of fish larvae collected last week as they are pressed plants from 100 years ago. "Our fish collection, for example, is the repository for NOAA for the north Pacific," said Sidor. NOAA — the US National Oceanic and Atmospheric Administration — uses the specimens collected each year to assess fish abundance and to set fishing quotas.

The NSF says that it is evaluating the collections grant programme, and is thus unable to say whether the funding hiatus is temporary or permanent. "That depends on the results of the evaluation," says Muriel Poston, director of the NSF's Division of Biological Infrastructure.

That doesn't satisfy scientists. "What gives?" tweeted Felisa Smith, an ecologist at the University of New Mexico in Albuquerque. "Biological collections are the bedrock of a lot of contemporary science!"

Comparing modern plants or animals to preserved specimens can help scientists to understand how the climate is changing and provide evidence of a species' historical range, which can illuminate whether a modern population is endangered or threatened.

Many museums are pushing to digitize their collections, which improves global access to information. But "there's no point digitizing if we don't take care of the collections themselves", says Barbara Thiers, director of the William and Lynda Steere Herbarium at the New York Botanical Garden. "You certainly can't get any DNA out of an image." ■