

PRESS RELEASE

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Revive & Restore

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**First of its Kind Grant Opportunity to Develop Biotechnologies
to Save Threatened Birds**

*Nonprofit Revive & Restore is launching an effort to enable genetic rescue
biotechnologies for wild birds by overcoming the unique challenges of egg-laying
reproduction*

SAUSALITO, Calif., February 1, 2022 – Today, [Revive & Restore](http://www.reviverestore.org) is sharing the news that they've secured a multi-million dollar grant to launch the "Biotechnology for Bird Conservation Program" to enable the development of genetic rescue biotechnologies to help save endangered birds. With this funding, Revive & Restore is announcing a global call for research proposals targeting the advancement of reproductive technologies to overcome the challenges of birds' unique egg-laying reproduction. The closing date for the call for proposals is May 1, 2022.

Unbeknownst to many, a bird's egg makes advanced reproductive technologies like *in vitro* fertilization (IVF) and cloning practically impossible. For IVF and cloning, one has to be able to create an embryo underneath a microscope – a tight place to squeeze an egg yolk, which is the world's largest single cell. Without biotechnologies available for birds, equivalent to IVF and cloning, genetic rescue opportunities are severely limited. The womb offers many pathways for genetic rescue in mammals, but with the right breakthroughs, the egg could enable capabilities more versatile than those available for mammals, allowing conservation interventions to achieve their intended consequences to save species and ecosystems.

Half of the world's 11,000 bird species are in decline, and one of every eight bird species is threatened with extinction despite conservation's best available tools. Without novel approaches to intervene, many species could go extinct in our lifetime—now is the time for innovation. The Biotechnology for Bird Conservation Program invites scientists to leverage biomedical advances made with domestic chickens, as well as to innovate

wholly new systems, to create versatile pathways to aid the recovery and prevent extinctions of birds. Among such pathways, biotechnologies optimized to fit the unique biology of the world's 40 orders of birds could make it possible to restore genetic diversity to dwindling populations and create opportunities to facilitate adaptation to disease and climate change.

“Habitat restoration and protections are vital for conservation success, but hundreds of bird species face immediate threats that demand innovative approaches,” said Dr. Sea McKeon, Director of the Marine Program at American Bird Conservancy. “We must embrace reproductive biotechnologies if we want to save these birds from extinction.”

To fast track progress in this field, Revive & Restore organized The International Avian Genetic Rescue Consortium. This consortium brings together biotechnology laboratories in the field of biomedicine, agriculture, and applied genomics research and avian conservationists to develop new tools that will expedite solutions to the incredible challenge of bird reproductive technology. Revive & Restore intends this new call for proposals to foster interdisciplinary collaborations, growing this community to bring new perspectives that could lead to the next cutting edge technology that secures a future for the world's birds.

Conservation strategist Tom Chase, executive director of the Village and Wilderness Project, said, “There is no better organization than Revive & Restore to advance this technology. I am confident they will pursue a transparent and accessible process that builds community around innovative bird conservation and influences for the future of avian conservation.”

Never before has there been significant funding or a coordinated effort like this to bring biotechnologies and make intended consequences possible for bird conservation. The advances made by researchers funded by this program will forge a brighter future for the world's birds and wildlife conservation.

Ben Novak, lead scientist at Revive & Restore, said, “These new technologies have the potential to revolutionize avian science and create immeasurable opportunities for conservation so that no bird species has to become or remain extinct in the future.”

To apply to Revive & Restore's Biotechnology for Bird Conservation program, visit <https://reviverestore.org/biotech-for-birds-rfp/> for detailed guidelines.