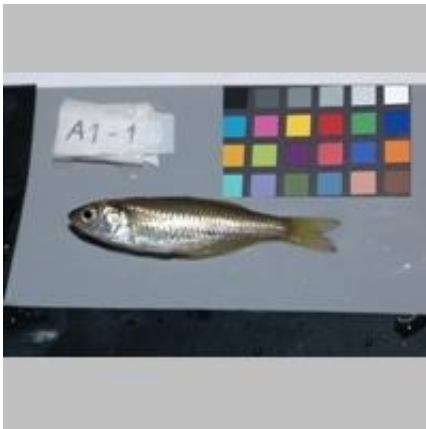


# Study to examine how mining and climate affect native fish

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(Phys.org) -- Researchers at The University of Western Australia will investigate how native freshwater fish in northwest Australia are dealing with changes to their habitat caused by climate change and mining.

Chief investigator Dr. Pauline Grierson, from UWA's School of [Plant Biology](#), said the inter-disciplinary study would examine the biological adaptation and ecological resilience of [freshwater fish](#) in the arid northwest climate.

"Balancing the protection of aquatic biodiversity with the increased human demand for water resources is a major challenge around the world," Dr. Grierson said.

"In Australia, man-made impacts on these aquatic ecosystems, such as changing water flows, pollution and the introduction of non-native species are expected to be exacerbated by the projected [effects of climate change](#).

"Arid and semi-arid lands are especially vulnerable due to an expected increase in the intensity of floods, separated by prolonged droughts and reduced surface water flows.

"Against this background of extreme climatic variability, de-watering in mining and water abstraction for regional water supply can significantly change stream flows and connectivity of pools within individual streams. There may be both positive and negative impacts on fish in these systems due to these changes."

The research group, including Professors Shaun Collin and Peter Davies, and Dr. Jennifer Kelley from UWA's School of Animal Biology, will examine fish behavior, [physical appearance](#) and [population genetics](#) as well as hydrological and environmental conditions.

"The research directly addresses national research priorities in [water](#) management, responding to climate change and variability and sustainable use of Australia's biodiversity," Dr. Grierson said.

The Australian Research Council has awarded \$400,000 over four years for the study, through its Linkage Projects scheme. Rio Tinto and BHP Billiton will partner UWA in the project as part of their ongoing commitment to sustainable development in the northwest.

The Linkage Projects scheme funds collaborative projects between university researchers and partner organisations in the public, private and not-for-profit sectors.

Provided by University of Western Australia

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