temperatures, minimum dissolved oxygen levels, and water depths. No specific favorable locations (conditions) for substrate placement could be identified. As such, substrates can be placed in locations that are convenient for workers to collect.

**IMPACTS**

Identification of goldfish and ballyhoo egg membrane compounds will aid in the identification of substances that will break the adhesive bond between the egg and spawning substrate. Desticking goldfish and ballyhoo eggs will improve production of goldfish and ballyhoo by enabling producers to utilize a smaller hatchery space. Current costs to run an indoor goldfish hatchery could save 90% of the costs per day.

**PUBLICATIONS, MANUSCRIPTS OR PAPERS PRESENTED**

**Publications in Print**


**Presentations**


Development of Bairfish, Goldfish, and Ornamental Fish Hatchery Methods


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