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AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM



RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Induced Maturation and Spawning of the Chinese Catfish *Clarias fuscus*

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Abstract: Chinese catfish (*Clarias fuscus*) were successfully spawned in Hawaii using human chorionic gonadotropin (HCG) at dosage rates of two and four international units (IU) per gram body weight. Fish not injected with HCG did not produce viable eggs. Successful spawns with HCG occurred between May and October. Hatch rates of up to 80% were obtained during June, July, and August for those fish given either a 2 or 4 IU per gram body weight injection of HCG. Fish spawned in either May or October yielded significantly higher hatch rates when injected with 4 rather than 2 IU per gram body weight. Fish held at elevated temperatures (28 to 30 C) prior to the normal spawning season developed significantly larger oocyte diameters, 60 days earlier than fish held under ambient temperature conditions (21.5 to 24 C). Photoperiod manipulation at ambient temperature conditions was associated with earlier oocyte maturation, but photoperiod effects were much less important than temperature.

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