

OPTIMAL LOCATION FOR RELEASING CULTURED JUVENILES OF THE OCELLATE PUFFER *TAKIFUGU RUBRIPES* IDENTIFIED BY TAG AND RELEASE EXPERIMENTS USING FLUORESCENT ELASTOMER

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We identified the optimal location for releasing artificially produced juveniles to enhance a stock of ocellate puffer, *Takifugu rubripes*, by tag and release experiments using fluorescent elastomer. The fish were released at four locations, Suruga Bay, Enshu Nada, Ise Bay and Kumano Nada, at the central coast of Honshu Island in Japan from 2001 to 2005. Approximately 10,000-40,000 cultured puffer fish were released in this study area for each of 23 groups. The marked fish were mainly recaptured at age 0 by small trawl net fisheries in Ise Bay, and at age one or older by longline fisheries within the whole area from Suruga Bay to Kumano Nada. An overall average recapture rate yielded 13.0% for the Ise Bay release group compared with 2.0%, 2.9%, and 0.7% for the Suruga Bay, Enshu Nada, and Kumano Nada release groups, respectively. As a result, it is clear that Ise Bay was a suitable release location for artificial seeds of ocellate puffer. However, significant differences in recapture rates were observed among three release locations in Ise Bay. Lower recapture rates were suspected to be caused by predation, as elastomer tagged fish were found in the intestines of Japanese seabass, *Lateolabrax japonicus*. It is suggested that release locations should be carefully evaluated and chosen for reducing initial mortality even if cultured ocellate puffer are released in Ise Bay. A favorable size for release was estimated to be at least 70 mm TL in Ise Bay.