

Japan Fisheries Research and Education Agency (FRA)

**The world's first successful complete coral trout aquaculture Project**

- World's first successful complete coral trout aquaculture project – 29,000 fry raised.
- Leading to the protection of natural coral trout, generating good genetic lineage and a supply of safe and secure farmed coral trout.

Coral trout (*Serranidae*), or *Akajin* in Okinawa, live in tropical or subtropical waters. Found near the Nansei islands or Greater China (Mainland China, Hong Kong, Singapore, Taiwan, etc.), the trout is traded at high prices as a luxury food; the red variety is particular expensive.

Worldwide fish catches of coral trout have been in decline in recent years, requiring appropriate resource management. During this period, the Japan Fisheries Research and Education Agency (FRA) has enabled seeding production of coral trout in units of 100,000 – a world first. Some local governments have been promoting research and development of coral trout as a potential species for aquafarming. However, because the current seeding-production method requires natural coral trout as a parent, the establishment of a "complete aquaculture technology" has been desired for more suitable conservation of natural resources. On July 28, 2016 the agency successfully farmed coral trout by using complete aquaculture, obtaining fertile eggs from coral trout (female/male) artificially born and raised. From these eggs, 29,000 seedings were artificially produced (survival rate: 24.2%).

This accomplishment allows production of coral trout seedings without harvesting natural fish; thus, contributing to the preservation of natural resources, namely coral trout. This complete aquaculture technology also allows genetic lineage to be selected by replicating the generations that have marketable characteristics, such as redder color or rapid growth. The technology enables all aquafarming processes to be artificially controlled, such as raising parent fish or seedings, and promises a supply of safe and secure farmed products.



Photo: Coral trout fry harvested from complete aquaculture (Length: 32 mm)