



## SHORT COMMUNICATION

### The first reported artificial propagation of yellow puffer, *Xenopterus naritus* (Richardson, 1848) from Sarawak, Northwestern Borneo

Ahmad Syafiq Ahmad Nasir<sup>1</sup>, Samsur Mohamad<sup>1</sup> & Mohammed Mohidin<sup>2</sup>

<sup>1</sup>Faculty of Resource Science and Technology, Department of Aquatic Science, Universiti Malaysia Sarawak, Kota Samarahan, Malaysia

<sup>2</sup>Fisheries Research Institute (FRI) Bintawa, Kuching, Malaysia

**Correspondence:** A S Ahmad Nasir, Faculty of Resource Science and Technology, Department of Aquatic Science, Universiti Malaysia Sarawak, 94300, Kota Samarahan, Sarawak, Malaysia. E-mail: anahmadsyafiq@gmail.com

#### Introduction

Pufferfish from family Tetraodontidae consists of 28 genera and 199 species worldwide, distributed in tropical and subtropical areas of Atlantic, Indian and Pacific Ocean (Nelson 1994). Some pufferfish species has become targeted species for aquaculture industry in various country including Japan, China, South Korea and Mexico. Reproductive biology of these valuable aquaculture species including tawny puffer (Shi, Zhang, Liu & Zang 2011), obscure puffer (Won, Kim & Park 2009; Kim, Dahms & Han 2013), tiger puffer (Wu, Tang, Yuan, Shi, Shakeela & Zhang 2015) and bullseye puffer (Sanchez, Alvarez-Lajonchere, Abdo De La Parra & Garcia 2008; Abdo-de La Parra, García-Ortega, Martínez-Rodríguez, González-Rodríguez, Velasco-Blanco, Hernández & Duncan 2010) has been studied extensively for optimizing the production in aquaculture.

In Sarawak coastal waters, there are 13 species of six genera of marine pufferfish species that has been reported (Vidthayanon 1998). Most of these species are non-target species in capture fisheries and has been considered as trash fish. However, there is one native pufferfish species that is widely consumed by the locals which is yellow puffer, *X. naritus*. Despite its lethality (Mohd Nor Azman, Samsur & Othman 2014), this species is considered as highly sought after delicacy due to the tenderness of their meat according to the locals.

*X. naritus* is a euryhaline species which inhabit along the coastal waters of Sarawak in South China Sea and also can be found abundantly in major estuaries of Saribas River, Sadong River, Lupar River and Rajang River. This species is a migratory species which will return to the river for spawning at lower salinity condition. The most common spawning ground of this species is situated at the upper part of Saribas River near Manggut Village which is located almost 90 kilometres from the Saribas estuary.

Local state government has organized annual pufferfish festival during its peak spawning season, thus making this species culturally important and considered as a fisheries state heritage. The festival attracts local and international tourists to experience the harvesting of yellow puffer together with the local fishermen community living along the Saribas River. Various products and cuisines of yellow pufferfish have been prepared by the locals including dried pufferfish and salted pufferfish eggs, which have been a famous tourism product and the price can reach up to 10–14 USD per kilogram (Muliadi & Mohammad 2008).

Considering these commercial and cultural importance of this species, a conservation effort has to be made to preserve this fisheries species for future generations. Various anthropogenic activities including illegal loggings, industrial sewage discharged, water pollutions and overexploitation will lead to extinction of this native pufferfish