

## Redescription of a Poorly Known Stingray, *Dasyatis laevis* (Chondrichthyes: Dasyatidae), with Notes on Some Biological Aspects in Ariake Sea, Japan

Keisuke Furumitsu<sup>1</sup>, Jie Zhang<sup>2</sup> and Atsuko Yamaguchi<sup>1</sup>

<sup>1</sup>Faculty of Fisheries, Nagasaki University, 1-14 Bunkyo, Nagasaki, 852-8521 Japan

E-mail: furusuke@nagasaki-u.ac.jp (KF); y-atsuko@nagasaki-u.ac.jp (AY)

<sup>2</sup>Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences. No. 1 Beichen West Road, Chaoyang District, Beijing, 100101 China

E-mail: zhangjie@ioz.ac.cn

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The poorly known dasyatid stingray *Dasyatis laevis* Chu, 1960 is re-described on the basis of a single syntype and 18 recently collected specimens from Ariake Sea, Japan, and the East China Sea. Sexual dimorphism and growth-related variation in taxonomic characters are considered, and life history characteristics, such as distribution and size at maturity, are clarified on the basis of an additional 464 specimens.

**Key Words:** Dasyatidae, Yantai Stingray, *Dasyatis laevis*, redescription, size at maturity.

### Introduction

*Dasyatis* Rafinesque, 1810, one of seven genera of stingrays belonging to the family Dasyatidae, is characterized by a long, whip-like tail, a tail spine, and a ventral tail fold that terminates before the tail tip. The genus includes approximately 36 species (Gomes *et al.* 2000; Compagno 2005; Last and White 2008a, b; Last and Stevens 2009), eight of which are distributed in Japanese waters (Aonuma and Yoshino 2000).

*Dasyatis laevis* Chu, 1960 was described on the basis of six specimens obtained from the Shanghai Fish Market, Dongfushan, and Huaniao, China. The first Japanese record of *D. laevis*, from Tachibana Bay, Nagasaki Pref., was reported by Yamada and Irie (1989), but no morphological details were given. Subsequently, Furumitsu *et al.* (2006) noted that *D. laevis* is also distributed in Ariake Sea, Japan, having long been misidentified there as *D. akajei* (Müller and Henle, 1841) owing to the morphological similarity of the two species. In fact, Nishida and Nakaya (1990) had earlier noted the potential for confused identifications within *Dasyatis*, owing to individual, sexual, and ontogenetic variation. Within recent years, many specimens of both *D. laevis* and *D. akajei* have been collected in coastal areas off western Kyushu, Japan.

Chu (1960) did not indicate the repository of his syntypes, but one of the numbered specimens (154,103-8 (4)) was found in 2006 in the East China Sea Fisheries Research Institute of the Chinese Academy of Fishery Sciences in Shanghai. This specimen has subsequently gone missing there (see Remarks), and as the remain-