

**Records of *Johnius vogleri* (Perciformes,
Sciaenidae) from Chinese Waters,
with Notes on Its Synonymy**

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While examining the sciaenid specimens collected from the Taiwan Straits on 16 April 1986, we found a specimen of *Johnius (Johnieops) vogleri* (Bleeker, 1853) (type locality: Sumatra), a species which has not been confirmed previously from the Chinese waters. Subsequent literature search has further revealed that the species has been reported from China and Taiwan by many authors mainly under the name of "*Wak sina* (Cuvier)". Our purpose in this paper is to demonstrate the distribution of *J. vogleri* in the Chinese waters. Methods of measurements and counts follow those of Sasaki and Kailola (1988). Standard length and head length are abbreviated as SL and HL respectively. The Taiwan specimen is deposited at the Laboratory of Marine Zoology, Faculty of Fisheries, Hokkaido University (HUMZ).

Results and discussion

The Taiwan specimen (HUMZ 109506, 169.7 mm SL; Fig. 1) must be included in the genus *Johnius* because it possesses a hammer-shaped swimbladder with a series of arborescent appendages along its sides. A row of enlarged teeth on the lower jaw is characteristic of the subgenus *Johnieops* of *Johnius*. Among the species of *Johnieops*, the Taiwan specimen agrees well

with *J. vogleri* as diagnosed by Trewavas (1977) in its few and short gill rakers (6+1+11; length 16.5% eye diameter) and large jaws (upper jaw length 42.9% HL, lower jaw length 48.0). *J. vogleri* resembles *J. distinctus* (Tanaka) in its gill raker counts and their length, but in addition to the larger jaws, the last pleural rib on the 10th vertebra and the absence of a pale lateral line (see Sasaki and Amaoka, 1989) in the Taiwan specimen further support our identification. Thus, *J. vogleri* is present in the Taiwan Straits.

Literature records are next considered. Fowler's (1933) synonymy of *Johnius vogleri* with *J. sina* (Cuvier) has been followed (e.g., by Weber and de Beaufort, 1936; Chu et al., 1963) until Talwar and Joglekar (1972) demonstrated the validity of *J. vogleri*. Trewavas (1977) agreed with Talwar and Joglekar in viewing *J. vogleri* as valid, though Trewavas assumed that Talwar and Joglekar's *J. sina* is actually *J. dussumieri* (Cuvier). Aside from this discrepancy which has not been settled yet, these authors differently synonymized the *Wak sina* of Chu et al. (1963) reported from the Chinese waters: Talwar and Joglekar with *J. vogleri*, whereas Trewavas with *J. tingi* (Tang) which was recently proved by Sasaki and Amaoka (1989) to be a junior synonym of *J. distinctus*. Hence, Trewavas' synonymy made the existence of *J. vogleri* in the Chinese waters questionable.

Despite Trewavas' (1977) statement that "I cannot find any specific differences between the descriptions and figures of *W. tingi* and *W. sina* by Chu, Lo & Wu (1963) and their key differentiates them only on the silvery lateral line of *W. tingi* and the number of gill rakers (5+9 vs. 6+11)," we support Talwar and Joglekar (1972) in syn-



Fig. 1. *Johnius vogleri* from the Taiwan Straits, HUMZ 109506, 169.7 mm SL.

onymizing *Wak sina* of Chu et al. with *vogleri*. Although the gill raker count is certainly not effective in separating *J. vogleri* from *J. distinctus*, and unfortunately the upper and lower jaw lengths are not available from the description of Chu et al., the pale lateral line is a diagnostic feature unique to *J. distinctus*. Hence, *Wak sina* of Chu et al., lacking this colour feature, resembles *J. vogleri*, with which it also agrees in the few and short gill rakers ($6+11=6+1+10$, length $1/3-1/4$ of eye diameter).

Similarly, *Pseudosciaena sina* of Tang (1937), *Johnius dussumieri* of Chu (1956), as well as *Wak sina* of Chu et al. (1962), all appear to be *J. vogleri*. Tang's (1937) single specimen of "*Pseudosciaena sina*" from Hainan (183 mm SL) has few and short gill rakers ($6+1+12$, length $1/5$ eye diameter) and its lateral line is not described to be pale. Further, the upper jaw length given by Tang (45.5% HL) accords well with that of *J. vogleri*. Tang also noted: "It agrees the figure of *S. vogleri* ("pl. VIV, fig. 1", but actually pl. XLV, fig. 2) in Day's Fishes of India rather than *S. sina* ("pl. XLV, fig. 2", but pl. XLIV, fig. 2)". Chu (1956) reported "*Johnius dussumieri*" on the basis of 12 specimens (147–213 mm SL) from Taiwan (Tung Kong, Kaohsiung, Giran). Although Trewavas (1977) included Chu's *dussumieri* in the synonymy of *Johnius (Johnius) belangerii* (Cuvier) with the prefix of a question mark, Chu's specimens are more likely to be *J. vogleri*. The description of the dentition given by Chu is too ambiguous to determine whether his specimens belong to the subgenus *Johnius* or to *Johnieops*, because he wrote: "mandibular teeth subequal or gradually enlarged from outer series to inner series". However, Chu's specimens cannot be *J. belangerii* as suspected by Trewavas since the interorbital space is too wide (24.5–30.0% HL vs. 19.0–24.7; data from 21 specimens, pers. obs.) and the second anal spine is too weak and short (ca. 20–24% HL vs. 38.6–48.9) to be *J. belangerii*. Once Chu's specimens are accepted as *Johnieops*, the illustration (pl. 4, fig. 1) is a good rendition of *J. vogleri*, and the diagnostic characters (gill rakers $5-6+1+10-11$, very short; pale lateral line absent as stated in the key) are consistent with that species. Ten specimens from the coasts of Kwangtung determined as *Wak sina* by Chu et al. (1962) must also be *J. vogleri*, since the specimens are

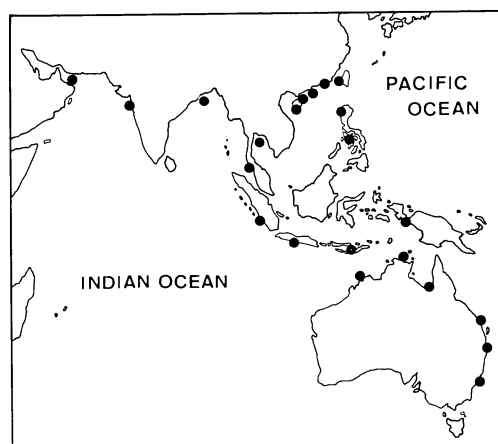


Fig. 2. Distribution of *Johnius vogleri*.

characterized by few and short gill rakers ($6+1+9-13$, length $1/3$ gill filaments) and no pale lateral line as stated in the key.

The distribution of *Johnius vogleri* in the Chinese waters is herewith confirmed by our specimen and the literature. This extends the range of the species considerably northward from the Philippines to the southern coasts of China and Taiwan. Fig. 2 summarizes the distribution of *J. vogleri* on the basis of Bleeker (1853), Tang (1937), Chu (1956), Chu et al. (1962), Chu et al. (1963), Talwar and Joglekar (1972), Trewavas (1977), Randall et al. (1978), Gloerfelt-Tarp and Kailola (1984), Mohan (1984), and the specimens examined by us. *J. vogleri* is thus widespread from the Gulf of Oman to the Indo-Australian Archipelago as well as southward to the eastern coasts of Australia and northward to the southern coasts of China and Taiwan.

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- 中国沿岸海域からの *Johnius vogleri* (ニベ科, コニベ属) の記録とシノニム
- 佐々木邦夫・尼岡邦夫
- Chu et al. (1963) が中国沿岸から報告した *Wak sina* (Cuvier) を Talwar and Joglekar (1972) は *Johnius vogleri* (Bleeker) のシノニムとしたが、一方 Trewavas (1977) はアブラグチ *J. distinctus* (Tanaka) のシノニムとした。従って 1977 年以來、中国沿岸海域における *J. vogleri* の分布は疑問とされてきた。今回、台湾海峡から得られた一標本と文献の調査によって、本種が中国南部の沿岸と台湾に分布することが確認された。本種の分布はオマン湾からインド・オーストラリア海域を経て、中国南部の沿岸、台湾におよぶ。
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