

NEW RECORD OF THE GENUS *INDRIVAL* FENNAH, 1978 (HEMIPTERA, FULGOROIDEA, DICTYOPHARIDAE) FROM CHINA

SONG Zhi-Shun, LIANG Ai-Ping*

Institute of Zoology, Chinese Academy of Sciences, Beijing 100080, China

Abstract The genus *Indrival* Fennah and its type species *I. nerinus* Fennah are reported for the first time from China. The specimens studied are deposited in the Zoological Museum, Institute of Zoology, Chinese Academy of Sciences (IZCAS), Beijing, China.

Key words Dictyopharidae, *Indrival*, new record, China.

The dictyopharid genus *Indrival* was established by Fennah in 1978 to contain a single species *Indrival nerinus* from Hghe An District, Vietnam. Since then, neither the genus nor the species has been reported in the literature. While sorting and identifying Dictyopharidae from material in the Zoological Museum, Institute of Zoology, Chinese Academy of Sciences, Beijing (IZCAS), the authors found a number of specimens of *I. nerinus* Fennah, 1978 from Southern China. The discovery of the species represents the first record of the genus and its type species from China. We herein redescribe and illustrate the species.

Genus *Indrival* Fennah, 1978 New record to China

Indrival Fennah, 1978: 257. Type species: *Indrival nerinus* Fennah, 1978, by original designation.

Diagnosis. Head short and broad, not distinctly produced in a cephalic process; vertex with median carina relatively distinct only in basal third to half; frons with lateral carinae converging posteriorly and approaching frontoclypeal suture; pronotum with median carina distinct, lateral discal carinae obscure and only elevated anteriorly; mesonotum tricarinate on disc, lateral carinae straight, nearly parallel; hind tibiae with 5 lateral spines, and 7 apical black-tipped spines, metatarsal segments I and II with 16-22 black-tipped spines apically, respectively; aedeagus without pair of phallical processes.

Remarks. Fennah (1978) suggested that "*Indrival* is clearly a close ally of *Doryphorina* and *Rainna* but is distinguished from both by the shape of the head, and from the latter in the arrangement of setae on the inner surface of the genital style ('parameres' in this paper)".

The genus is also externally similar to *Dictyopharina* Melichar, but can be distinguished from the latter by the vertex with median carina relatively distinct only in basal third to half (distinct and complete in the latter); the mesonotum with lateral carinae straight, nearly parallel

(curving anteriorly towards median carina in the latter); the hind tibiae with 7 apical black-tipped spines (8 apical black-tipped spines in the latter).

Distribution. Vietnam; Southern China (Anhui, Guangdong, Guangxi, Hunan).

***Indrival nerinus* Fennah, 1978 New record to China**
(Figs. 1-12)

Indrival nerinus Fennah, 1978: 258, Figs. 203-210.

Redescription. ♂, length (from apex of cephalic process to tip of forewings) 9.9-10.5 mm; length of head 1.2 mm, width (including eyes) 1.5 mm; length of forewings 7.9-8.4 mm; ♀, length (from apex of cephalic process to tip of forewings) 10.5-11.8 mm; length of head 1.2-1.3 mm, width (including eyes) 1.6-1.7 mm; length of forewings 8.4-9.5 mm.

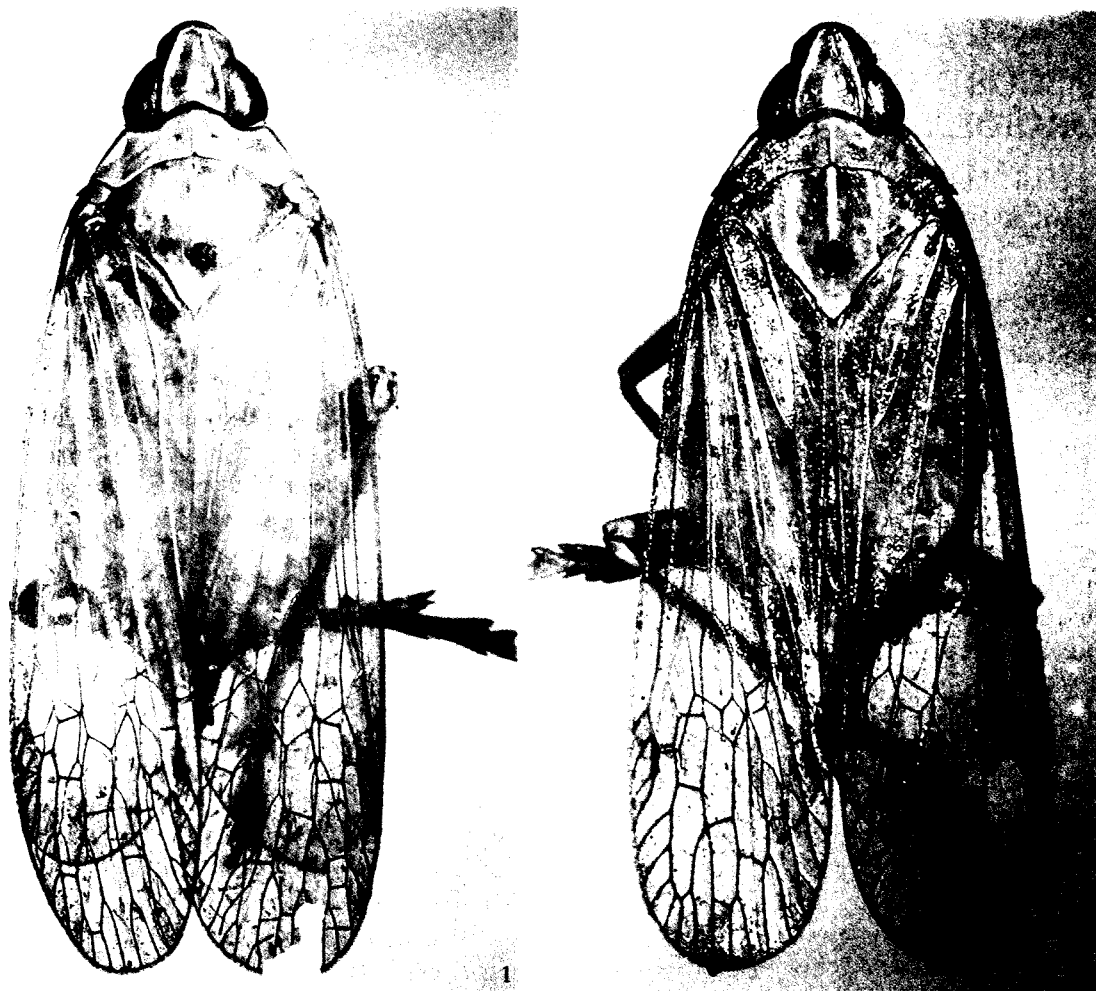
General color pale ochraceous or stramineous green (probably green in life, but faded in dead dried specimens); intercarinal area of frons orange brown; carinae on cephalic process, frons, pronotum and mesonotum, and parts of veins on fore wings, green; fore and middle legs greenish brown with longitudinal fuscous stripes, hind legs green, brown distally on tibiae and metatarsi.

Head (Figs. 1-5) short and broad, not produced in a cephalic process. Vertex (Figs. 1-3) transversely broad and nearly trapeziform, with ratio of length to width between eyes 1.5:1.0; anterior margin convex, lateral carinate margins converging anteriorly, posterior margin slightly concave; disc somewhat elevated medially in base, with median carina relatively distinct only in basal third to half. Frons (Fig. 5) longer than broad (about 1.2:1.0), widest just below level of antennae; anterior margin arched, lateral carinate margins nearly parallel, posterior margin concave; median carina distinct and complete, lateral carinae converging posteriorly and

This work was supported by the Biological Innovation Fund (KSCX2-YW-Z-010) and the Hundred Talent Program (grant number A2903077), both from the Chinese Academy of Sciences and the National Science Fund for Fostering Talents in Basic Research (NSFC-J0030092).

* Corresponding author, E-mail: liangap@ioz.ac.cn

Received 28 Aug. 2007, accepted 2 Nov. 2007.



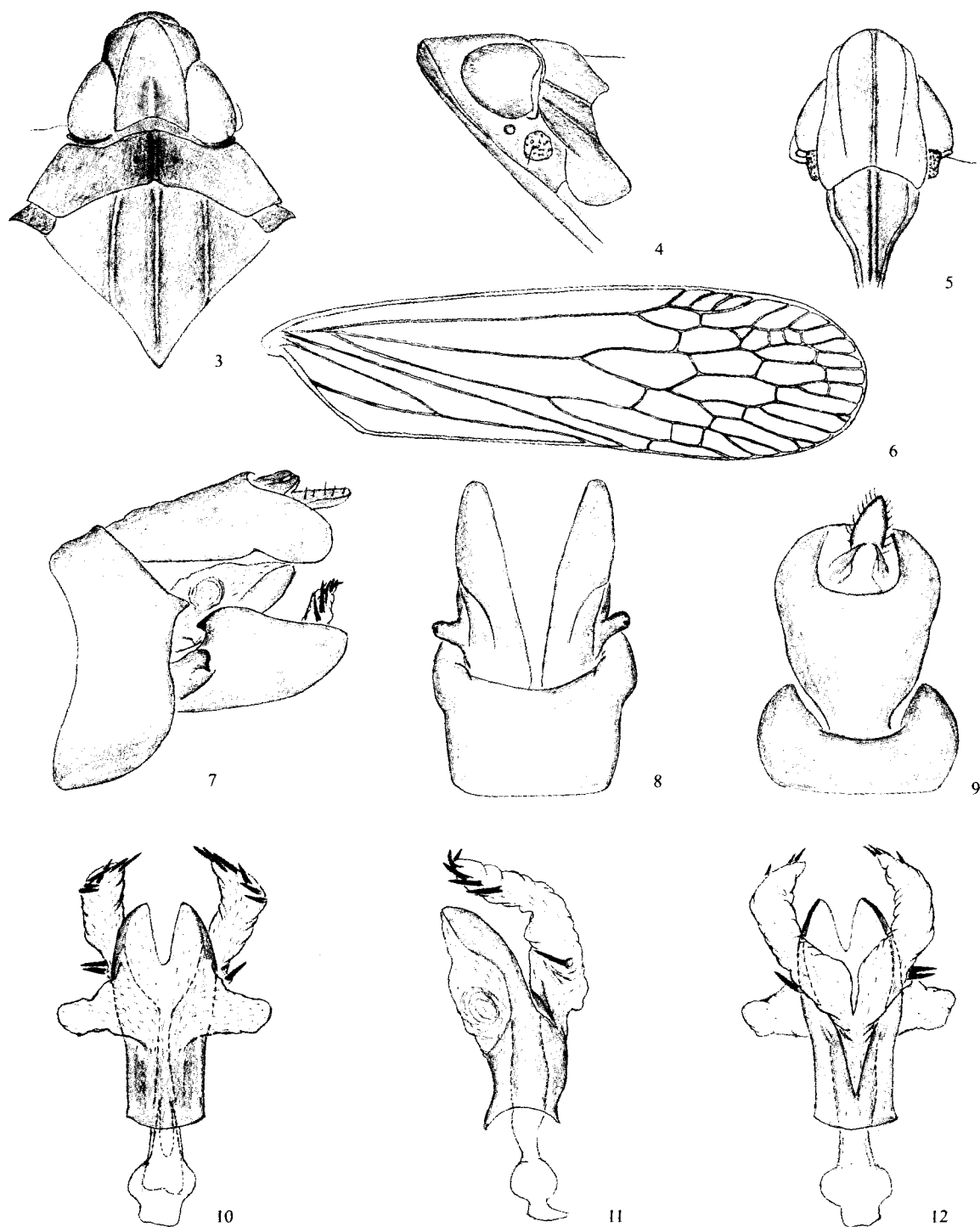
Figs. 1-2. Dorsal habitus of *Indrival nerinus* Fennah, 1978. 1. Female. 2. Male.

approaching frontoclypeal suture. Postclypeus and anteclypeus convex medially, with distinct median carina. Rostrum long, reaching between hind coxa. Antennae (Figs. 13-15) with very small scape; pedicel large and subglobose, with more than 50 distinct sensory plaque organs distributed over entire surface; flagellum long, setuliform.

Pronotum (Figs. 1-3) distinctly shorter than mesonotum in middle line, narrow anteriorly and broad posteriorly; disc broad, slightly arched in middle front, lateral marginal areas straight and sloping, posterior margin angulately concave; median longitudinal carina distinct, lateral discal carinae obscure and only elevated anteriorly, lateral depressions big and distinct. Mesonotum (Figs. 1-3) tricarinate on disc; lateral carinae straight, nearly parallel. Forewings (Fig. 6) hyaline, ratio of length to width about 3:1; Sc slightly sinuated distad of Sc + R fork, stigma long with 3-4 cells. Legs moderately elongate, fore femora unarmed or with a single minute spine near apex, not flattened and dilated; hind tibiae with 5 lateral spines, and 7 apical black-tipped

spines, metatarsal segments I and II with 16-22 black-tipped spines apically, respectively.

Male genitalia with pygofer (Figs. 7-9) narrow and long in lateral view, posterior margin with a posteriorly directed process near middle, obtuse but abruptly angulate in lateral view (Fig. 7); dorsal margin deeply excavated to accommodate anal tube, dorsal-lateral margins angularly produced posteriorly in dorsal view (Fig. 9). Anal tube (Fig. 9) large and stout in dorsal view, ratio of length to width at middle about 1.5:1.0. Anal style (Fig. 9) stout and long. Parameres (Figs. 7-8) large, with apex rounded and protruded backward in lateral view (Fig. 13); upper margin with an inward directed, black-tipped process near middle, with ventrally directed, hooklike process near sub-middle on outer upper edge; in ventral view (Fig. 8) parameres symmetrical, with numerous spiniform setae on inner surfaces in basal half grouped in a lax clump, not extending basad to basal angles. Aedeagus (Figs. 10-12) moderately large; sclerotized and pigmented portion of phallobase relatively short dorsally, long laterally and



Figs.3-12. *Indrial nerinus* Fennah, 1978. 3. Head, pronotum and mesonotum (dorsal view). 4. Head and pronotum, lateral view. 5. Head, ventral view. 6. Forewing. 7. Genitalia, lateral view. 8. Pygofer and parameres, ventral view. 9. Pygofer and anal tube, dorsal view. 10. Aedeagus, dorsal view. 11. Aedeagus, lateral view. 12. Aedeagus, ventral view.

very short ventrally; phallobase with a pair of membranous lobes on dorsal middle which produced laterad, and with a pair of elongate, membranous lobes on venter which directed caudad, and possessed 0-2 long

spines at base and a row of 6-8 long spines laterally; phalli forked at base, but not pair of parallel processes produced.

Material examined. China, 7♂♂, 3♀♀,

Hunan, Changsha, Mt. Yuelu, 15 July 1955, coll. WANG Lin-Yao; 1♂, Anhui, Sucheng, 11 Aug. 1955, coll. WANG Lin-Yao; 1♀, Guangxi, Guilin, Yanshan, 8 July 1963, coll. WANG Shu-Yong; 1♀ (560-6), Guangdong, Guangzhou, Shibe, 4 Sep. 1962, coll. ZHENG Le-Yi and CHENG Han-Hua (all in IZCAS).

Distribution. Vietnam (Nghe An District); Southern China (Anhui, Guangdong, Guangxi, Hunan).

中国象蜡蝉科 (半翅目, 蜡蝉总科) 一新纪录属

宋志顺 梁爱萍*

中国科学院动物研究所 北京 100101

摘要 记述了中国象蜡蝉科 1 新纪录属平象蜡蝉属 *Indrival* Fennah, 1978 及该属的模式种泥润平象蜡蝉 *Indrival nerinus*

关键词 象蜡蝉科, 平象蜡蝉属, 新纪录, 中国.

中图分类号 Q969.35

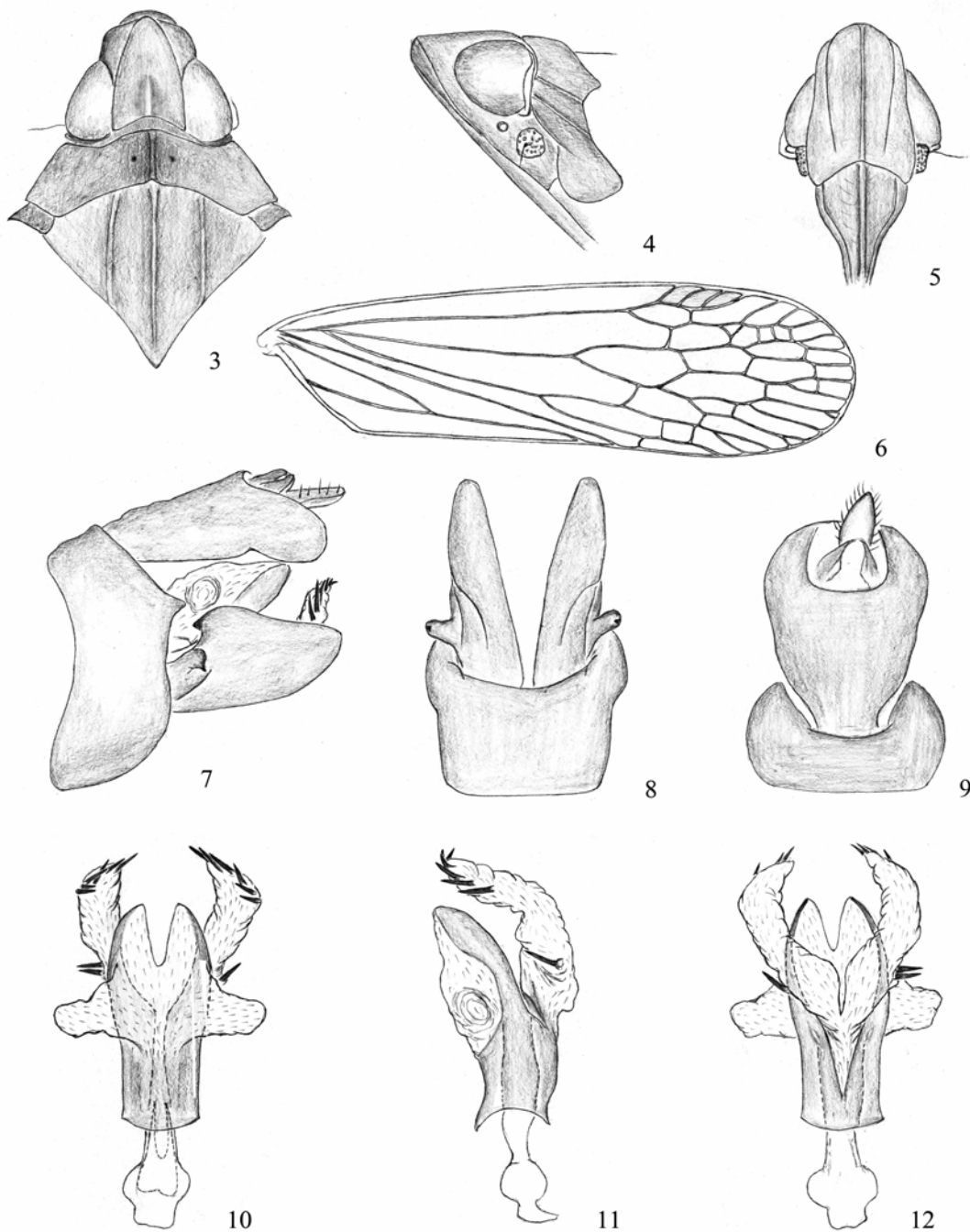
REFERENCES

- Fennah, R. G. 1978. Fulgoroidea (Homoptera) from Vietnam. *Annales Zoologica*, 34 (9): 207-279.
- Melichar, L. 1912. Monographie der Dictyophorinen (Homoptera). *Abhandlungen Der Zoologisch Botanischen Gesellschaft in Wien*, 7 (1): 1-221.
- Metcalf, Z. P. 1946. General catalogue of the Hemiptera, Fasc. IV. Fulgoroidea, Part 8 Dictyopharidae. Smith College, Northampton, MASS. 246 pp.
- Song, Z-S and Liang, A-P 2006. First record of the genus *Dictyopharina* Melichar (Hemiptera: Fulgoroidea: Dictyopharidae) from China, with descriptions of two new species. *Zootaxa*, 1166: 21-33.

Fennah, 1978. 研究标本保存于中国科学院动物研究所动物标本馆。



Figs. 1-2. Dorsal habitus of *Indrival nerinus* Fennah, 1978. 1. Female. 2. Male.



Figs. 3-12. *Indrival nerinus* Fennah, 1978. 3. Head, pronotum and mesonotum (dorsal view). 4. Head and pronotum (lateral view). 5. Head (ventral view). 6. Forewing. 7. Genitalia (lateral view). 8. Pygofer and parameres (ventral view). 9. Pygofer and anal tube (dorsal view). 10. Aedeagus (dorsal view). 11. Aedeagus (lateral view). 12. Aedeagus (ventral view).