

## A new *Cephalops* FALLÉN, 1810 species from North Korea (Diptera, Pipunculidae)

by Milan KOZÁNEK and Marc DE MEYER

### Abstract

A new *Cephalops* species from North Korea is described and illustrated. The new species belongs to the *semifumosus* species group of *Cephalops* and is closely related to the West-Palaeartic *C. signatus* (BECKER).

### Introduction

*Cephalops* is a cosmopolitan genus, found in all main zoogeographical regions. The European *Cephalops* fauna is well known. Within the scope of a world revision of this genus, DE MEYER (1989a) recognized 16 species from the West-Palaeartic region. Data on the occurrence of *Cephalops* from the eastern part of the Palaeartic region on the other hand, have only been accumulated during the last two years. MORAKOTE & HIRASHIMA (1990) reported 14 species from Japan. KUZNETZOV (1990), DE MEYER & KOZÁNEK (1990) and DE MEYER & TANASIJSKIJ (1990) published additional data on the occurrence of *Cephalops* species from the Soviet Far East and North Korea.

During the study of extensive Pipunculidae material, collected by the first author in many localities in North Korea, a new *Cephalops* has been found. The species belongs to the *semifumosus* species group (as defined in DE MEYER, 1989a) and is closely related to *C. signatus* (BECKER). On the basis of published data and studied material, we have also compiled a provisional check list of far East *Cephalops* species (Table 1).

### *Cephalops acklandi* sp. nov.

#### Type material:

Holotype: ♂, P.D.R. Korea, Ryanggang Province, Paekdusan Mountains, Samjiyon, 15.VIII.1989 (leg. M. KOZÁNEK). Allotype: 1 ♀, same locality as holotype, 18.VIII.1989 (leg. M. KOZÁNEK). Both types are deposited in the Slovak National Museum, Bratislava, Czech and Slovak Federal Republic.

#### Description:

Male. Third antennal segment orange-yellow, acute, pubescent; second antennal segment dark brown with 2

Table 1. Checklist of *Cephalops* FALLÉN species recorded from the Eastern Palaeartic Region (J: Japan, K: Korean peninsula, U: Far East of the U.S.S.R.).

Species	K	J	U
<i>acklandi</i> sp. nov.	*		*?
<i>adamanteus</i> DE MEYER & KOZÁNEK	*		*
<i>aeneus</i> FALLÉN	*	*	*
<i>carinatus</i> VERRALL	*		
<i>furcatus</i> (EGGER)		*	
<i>hikosanus</i> MORAKOTE		*	
<i>hirashimae</i> MORAKOTE		*	
<i>honshuensis</i> MORAKOTE		*	
<i>incohatus</i> MORAKOTE		*	
<i>kasparjani</i> KUZNETZOV			*
<i>kumatai</i> MORAKOTE		*	
<i>kunashiricus</i> KUZNETZOV			*
<i>kurilensis</i> KUZNETZOV			*
<i>metallicus</i> MORAKOTE		*	
<i>obtusinervis</i> (ZETTERSTEDT)	*	*	
<i>pacatus</i> MORAKOTE		*	
<i>pulvillatus</i> KERTÉSZ		*	
<i>sapporoensis</i> MORAKOTE		*	
<i>shikotanicus</i> KUZNETZOV	*		*
<i>signatus</i> (BECKER)	*		
<i>yoshiyasui</i> MORAKOTE		*	
<i>vittipes</i> (ZETTERSTEDT)	*	*	*

dorsal and 3 ventral dark bristles. Frons black, silver-grey pubescent; about 1.3 times longer than third antennal segment, with small subshining black median patch. Occiput black, greyish dusted, in upper third with greyish brown dusting.

Thorax. Mesonotum black, in anterior margin and at lateral sides greyish, otherwise brownish dusted. Scutellum black, brownish grey dusted, with row of short dark hairs along hind margin. Humeri black, greyish dusted. Propleural fan with 6 long hairs. Pleura black, greyish dusted. Halteres yellowish.

Legs. Coxae black, greyish dusted, narrowly yellow at apex. Trochanters yellowish. Femora yellow with broad

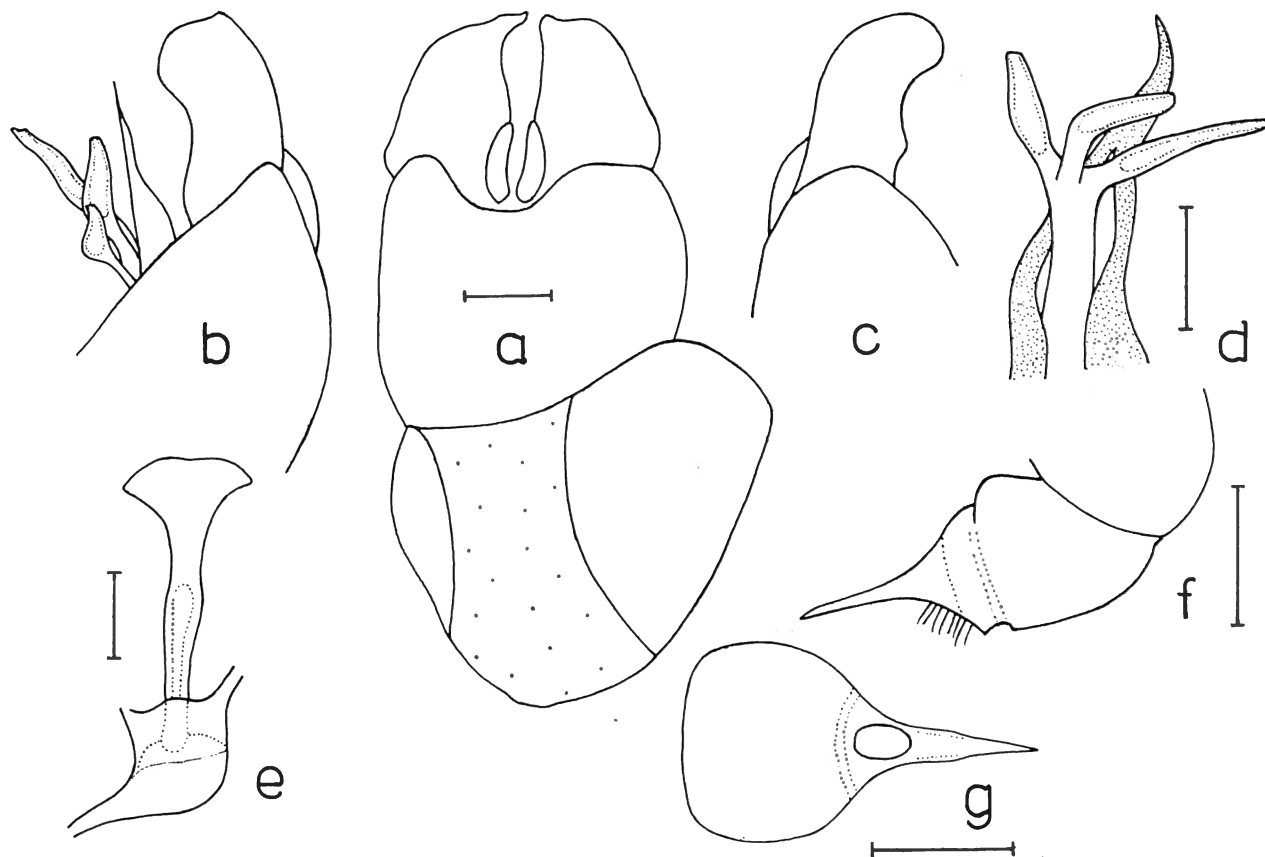


Fig. 1. — *Cephalops acklandi* sp. nov.: a-e, male terminalia: a, dorsal view; b, inner surstylus lateral; c, outer surstylus lateral; d, apical part aedeagus and ejaculatory ductuli ventral, e, ejaculatory apodeme (scale line 0.1mm); f-g, female terminalia: f, lateral view, g, ventral view (scale line 0.5 mm).

dark median ring. Mid and hind femora ventrally with double row of 9-11 short dark spines. Hind femora posteroventrally shining dark brown. Tibiae dull yellow, hind tibiae slightly thickened in the middle with 3 outstanding dark bristly hairs. Tarsi yellow, last tarsal segment darkened. Pulvilli little shorter than last tarsal segment; unguiculli as long as last segment.

Wings. Pterostigma fully coloured; third costal section little longer than fourth section. Vein M1 + 2 only slightly undulated. Cross vein r-m placed near the middle of discal cell. Anal vein present. Wing length 4.8mm.

Abdomen. Tergum 1 black, greyish dusted; laterally with 6-8 long dark bristly hairs. Terga 2 and 3 with narrow band of brownish dusting along front margin, otherwise shining black-brown. Remaining terga shining black-brown. Sternum 8 with membraneous area reaching epandrium, in distal view occupying less than half of sternum 8, rounded above and elongated towards epandrium.

Male terminalia (Figs 1a-e). Surstyli broad, slightly pointed in apical end, asymmetrical. Apical part of aedeagus subsymmetrical, slim, pointed, not ankyroid. Ejaculatory duct trifid, with cupular ends. Ejaculatory apodeme funnel shaped in apical part.

Female. As male except for the following characters.

Frons slightly broadened in the middle, silver-grey pubescent except for upper part. Mesonotum with more greyish dusting along anterior margin. Third costal section about as long as fourth section. Wing length 4.4 mm. Abdomen subshining black-brown with scarce greyish dusting, more dense laterally.

Terminalia (Figs 1f-g). Base of ovipositor subshining black, roundish above, slightly flattened below. Piercer yellowish, straight about as long as base.

#### Distribution:

Paekdusan mountains, P.D.R. Korea. In DE MEYER & TANASIJTSHUK (1990) a specimen was mentioned from Zimmermanovka, Amur river region (U.S.S.R.) under *C. signatus* (with additional discussion regarding morphological differences) who probably also belongs to this new species.

#### Etymology:

This new species is named in honour of Mr. Michael ACKLAND (Oxon, U.K.) who first pointed out the differences with its closely allied species, *C. signatus*.

#### Relationship:

*C. acklandi* belongs to the *semifumosus* group as defined

in DE MEYER (1989a) by the membranous area being key-hole shaped and reaching the epandrium, and the asymmetrical apical part of the aedeagus. It is related to the species set with the surstyli broadly shaped in lateral view without a distinct ventral protuberance, and the ejaculatory ductuli with cupular ends. This combination of characters is also found in the Nearctic *C. pallipes* (JOHNSON) and *C. curvarmatus* DE MEYER and in the Palearctic *C. subultimus* COLLIN and *C. signatus* (BECKER) (see DE MEYER, 1989b). *C. acklandi* is most closely related to the latter species, by the elongated non-ankyroid apical part of the aedeagus. It can be differentiated from *C. signatus* by the apical part of the aedeagus being more elongated and by the cupular ends of the ejaculatory ductuli being longer and more slender.

### References

- DE MEYER, M., 1989a. The West-Palaeartic species of the pipunculid genera *Cephalops* and *Beckerias* (Diptera): classification, phylogeny and Geographical distribution. *Journal of natural History*, 23: 725-765.
- DE MEYER, M., 1989b. Systematics of the Nearctic species of the genus *Cephalops* Fallén (Diptera, Pipunculidae). *Bulletin de l'Institut royal des Sciences naturelles de Belgique, Entomologie*, 59: 99-130.
- DE MEYER, M & KOZÁNEK, M., 1990. Description of a new species of the genus *Cephalops* Fallén (Diptera, Pipunculidae) from North Korea. *Biologia (Bratislava)*, 45: 827-830.
- DE MEYER, M. & TANASIJSKIJ, V.N., 1990. A short note on the occurrence of the genus *Cephalops* Fallén (Diptera, Pipunculidae) in the U.S.S.R.. *Belgian Journal of Zoology*, 120: 205-208.
- KUZNETZOV, S. Y., 1990. Palearctic species of Pipunculidae (Diptera). *Dipterological Research*, 1: 22-50.
- MORAKOTE, R. & HIRASHIMA, Y., 1990. A systematic study of the Japanese Pipunculidae (Diptera), Part III The genus *Cephalops* Fallén. *Journal of the Faculty of Agriculture, Kyushu University*, 34: 183-214.

Milan KOZÁNEK  
Institute of Experimental  
Phytopathology and Entomology,  
Slovak Academy of Sciences,  
900 28 Ivanka pri Dunaji,  
Czech and Slovak Federal Republic.

Marc DE MEYER  
Dept Zoology,  
Moi University,  
P.O.Box 3900,  
Eldoret, Kenya