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Five new species of the genus *Gnypeta* THOMSON from the Australian and Oriental Regions (Coleoptera, Staphylinidae, Aleocharinae)

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A b s t r a c t : Five species from the genus *Gnypeta* THOMSON are described and illustrated: *Gnypeta austeni* sp.n., *G. densepunctata* sp.n., *G. evansi* sp.n., *G. murraiensis* sp.n. and *G. solomonensis* sp.n. Their affinities with related species are discussed.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, *Gnypeta*, new species, Australian Region, Oriental Region.

Introduction

The genus *Gnypeta* THOMSON 1858 currently comprises approximately 80 species, the majority of them occurring in the Oriental Region and only few species have been recorded from the Australian Region (BERNHAUER & SCHEERPELTZ 1926, CAMERON 1933, 1939, 1950, PACE 1984a, 1984b, 1986, 1987, 1989, 1990a, 1990b, 1991, 2000, PAŚNIK 2002). Among recently examined unidentified material from the collections of the Natural History Museum in London, five new species of *Gnypeta* have been discovered, which are described below.

The holotypes and paratypes of new species have been deposited in the Natural History Museum in London (BMNH), the Museum Zoologicum Bogoriense, Raya Jakarta-Bogor, Cibinong, Indonesia (MZBI) and in the Institute of Systematics and Evolution of Animals, Polish Academy of Sciences in Krakow (ISEA).

Gnypeta austeni spec.nov. (Figs 1-3)

Description.

Body. Length 2.2-2.4 mm. Body convex, parallel-sided, shiny; head red, pronotum yellow, elytra black with anterior margin widely and posterior margin narrowly yellow, abdomen black with tergites 3-5 yellow, legs yellow, antennae red.

Head circular in outline, convex, shiny; widest across eyes; eyes large, moderately protruding from lateral contours of head, length of each seen from above subequal to that of postocular region; temples broadly arcuately narrowed to hind angles; surface of head without microsculpture; punctuation relatively coarse and dense; pubescence short and moderately dense, directed inward.

Antennae very long, weakly increasing in width apically, extending to 3/4 of elytra, antennomere 3 longer than 2, antennomeres 4-8 longer than wide, decreasing in length, antennomeres 9-10 as long as wide, antennomere 11 nearly coniform.

Pronotum transverse, convex, widest in apical third, lateral sides sinuately narrowed to hind angles; before base with small and shallow transverse impression; surface without microsculpture; punctuation relatively coarse and dense, but finer than that on head; pubescence short and moderately dense, at midline directed anteriorly.

Elytra subquadrate, slightly wider than pronotum, widest behind middle, lateral sides moderately arcuate, at suture as long as pronotal length at midline, at sides distinctly longer than pronotum at midline; surface lacking microsculpture; punctuation relatively coarse and dense, similar to that on head; pubescence short and dense, directed obliquely posteriorly.

Abdomen weakly constricted at base, widest at level of tergites 5 and 6, bases of tergites 3-5 each with deep transverse impression, impressions smooth and impunctuate; tergal punctuation similar to that on pronotum, surface without microsculpture; pubescence relatively short and moderately dense.

Male. Aedeagus as in Figs 1-2. Female. Spermatheca as in Fig. 3.

Remarks. *Gnypeta austeni* sp.n. is similar to *G. tronqueti* PACE, from which it differs by its smaller size, the more transverse pronotum, the strongly shiny body, the coarse punctuation of forebody, especially the head and elytra and by the shape of aedeagus.

Material examined: Holotype: ♂: Solomon Is., Guadalcanal, Mt. Austen, 24.VIII.1965, P. Greenslade (BMNH). Paratypes: ♂, 3♀♀: same data as holotype (BMNH); 2♂♂, 5♀♀: Solomon Is., Guadalcanal, Mt. Austen, 19.XI.1963, P. Greenslade (BMNH); 3♂♂: Solomon Is., Guadalcanal, Mt. Austen, 19.XI.1963, P. Greenslade (ISEA); 3♂♂, 4♀♀: same data as holotype, except: 17.II.1963 (BMNH); 3♀♀: same data as holotype, except: 7.XII.1963 (BMNH); 3♂♂: same data as holotype, except: 14X.II.1963 (BMNH); 2♀♀: same data as holotype, except: 6.X.1963 (ISEA); 2♂♂, 3♀♀: same data as holotype, except: 15.IX.1963 (BMNH); ♂: same data as holotype, except: 7.V.1963 (BMNH); ♂: same data as holotype, except: 4.II.1963 (BMNH); ♂: same data as holotype, except: 18.IV.1963 (BMNH); ♀: same data as holotype, except: 19.VI.1963 (BMNH); ♀: same data as holotype, except: 10.IV.1963 (BMNH); ♂: same data as holotype, except: 1.V.1963 (BMNH); ♀: same data as holotype, except: 18.III.1963 (BMNH); 2♂♂, 5♀♀: same data as holotype, except: 17.II.1963 (BMNH); ♂: same data as holotype, except: 20.V.1963 (BMNH); ♂: same data as holotype, except: 23.V.1963 (BMNH); 3♀♀: same data as holotype, except: 11.II.1963 (BMNH); ♂, ♀: same data as holotype, except: 13.II.1963 (BMNH); ♂, 3♀♀: same data as holotype, except: 5.IX.1963 (BMNH); ♂, 3♀♀: Solomon Is., Guadalcanal, Nr. Honiara, Mount Austen, 24.VIII.1965, P.N. Lawrence (BMNH); ♂, 2♀♀: Solomon Is., Guadalcanal, Nr. Honiara, Mount Austen, 24.VIII.1965, P.N. Lawrence (ISEA); 3♀♀: Solomon Is., Kolombangara, Nr. Kuzu, 3-8.IX.1965, P.N. Lawrence (BMNH).

Gnypeta densepunctata spec.nov. (Figs 4-6)

Description.

Body. Length 2.6-2.8 mm. Body convex, parallel-sided, shiny; ground colour brown, abdomen black with tergites 3-4 yellow, legs brown with tibiae and tarsi yellow, antennae yellowish-red, middle antennomeres slightly infuscate.

Head circular in outline, convex, weakly shiny; widest across eyes; eyes large, moderately protruding from lateral contours of head, length of each seen from above subequal

to that of postocular region; temples broadly arcuately narrowed to hind angles; surface of head without microsculpture; punctuation relatively coarse and very dense; pubescence short and moderately dense, directed inward.

Antennae very long, weakly increasing in width apically, extending to 3/4 of elytra, antennomere 3 longer than 2, antennomeres 4-10 longer than wide, decreasing in length, antennomere 11 nearly coniform.

Pronotum transverse, convex, widest in apical third, lateral sides sinuately narrowed to hind angles; before base with small and shallow transverse impression; surface without microsculpture; punctuation relatively coarse and very dense; pubescence short and moderately dense, at midline directed anteriorly.

Elytra subquadrate, slightly wider than pronotum, widest behind middle, lateral sides moderately arcuate, at suture as long as pronotal length at midline, at sides distinctly longer than pronotum at midline; surface lacking microsculpture; punctuation relatively coarse and dense, similar to that on pronotum; pubescence short and dense, directed obliquely posteriorly.

Abdomen weakly constricted at base, widest at level of tergites 5 and 6, bases of tergites 3-5 each with deep transverse impression, impressions smooth and impunctuate; tergal punctuation fine and dense, surface with fine transversely stretched isodiametric mesh microsculpture; pubescence relatively short and moderately dense.

Male. Aedeagus as in Figs 4-5. Female. Spermatheca as in Fig. 6.

Remarks. *Gnypeta densepunctata* sp.n. is similar to *G. decorata* PACE, from which it differs by the coarser punctuation of forebody, the colouration of antennae, the denser abdominal punctuation and mainly by the shape of aedeagus.

Material examined: Holotype: ♂: Indonesia, Sulawesi Utara, Dumoga-Bone N.P., 24.II.1985, flight interception trap, lowland forest (MZBI); Paratypes: 2♀♀: same data as holotype, except: 14.II.1985 (BMNH); ♀: same data as holotype, except: 10.II.1985 (BMNH); 2♀♀: same data as holotype, except: 10.II.1985 (ISEA); ♀: same data as holotype, except: III.1985 (BMNH); ♀: same data as holotype, except: I.1985 (BMNH).

Gnypeta evansi spec.nov. (Figs 7-8)

Description.

Body. Length 2.3 mm. Body convex, parallel-sided, shiny; ground colour brown, elytral anterior margin red, abdomen black with tergites 3 and 4 yellow, legs brown with tibiae and tarsi yellow, antennae brown with antennomeres 1-2 red and 10-11 yellow.

Head circular in outline, convex, shiny; widest across eyes; eyes large, moderately protruding from lateral contours of head, length of each seen from above subequal to that of postocular region; temples broadly arcuately narrowed to hind angles; surface of head without microsculpture; punctuation fine and sparse; pubescence short and moderately dense, directed inward.

Antennae very long, weakly increasing in width apically, extending to 3/4 of elytra, antennomere 3 longer than 2, antennomeres 4-10 longer than wide, decreasing in length, antennomere 11 nearly coniform.

Pronotum transverse, convex, widest in apical third, lateral sides sinuately narrowed to hind angles; before base with small and shallow transverse impression; surface without

microsculpture; punctuation very fine and relatively sparse; pubescence short and moderately dense, at midline directed anteriorly.

Elytra subquadrate, slightly wider than pronotum, widest behind middle, lateral sides moderately arcuate, at suture as long as pronotal length at midline, at sides distinctly longer than pronotum at midline; surface lacking microsculpture; punctuation fine and moderately dense; pubescence short and dense, directed obliquely posteriorly.

Abdomen weakly constricted at base, widest at level of tergites 5 and 6, bases of tergites 3-5 each with deep transverse impression, impressions smooth and impunctuate; tergal punctuation fine and moderately dense, surface without microsculpture; pubescence relatively short and moderately dense.

Male. Aedeagus as in Figs 7-8. Female unknown.

Remarks. *Gnypeta evansi* sp.n. differs from all other Oriental species by the very fine and relatively sparse pronotal punctuation, the strongly shiny forebody and by the shape of aedeagus.

Material examined: Holotype: ♂: Fiji Is., Taveuni, Waiyevo, 22.X.1924, Dr. H.S. Evans (BMNH).

***Gnypeta murraiensis* spec.nov. (Figs 9-11)**

Description.

Body. Length 2.6-2.9 mm. Body convex, parallel-sided, shiny; head and pronotum dark brown, elytra black with posterior margin brown, abdomen reddish-brown with tergite 6 black, legs brown with tibiae and tarsi yellow, antennae brown with antennomeres 1-3 and 11 red.

Head circular in outline, convex, shiny; widest across eyes; eyes large, moderately protruding from lateral contours of head, length of each seen from above subequal to that of postocular region; temples broadly arcuately narrowed to hind angles; surface of head without microsculpture; punctuation coarse and dense; pubescence short and moderately dense, directed inward.

Antennae very long, weakly increasing in width apically, extending to 3/4 of elytra, antennomere 3 longer than 2, antennomeres 4-8 longer than wide, decreasing in length, antennomeres 9-10 as long as wide, antennomere 11 nearly coniform.

Pronotum slightly transverse, convex, widest in apical third, lateral sides sinuately narrowed to hind angles; before base with small and shallow transverse impression; surface without microsculpture; punctuation coarse and dense; pubescence short and moderately dense, at midline directed anteriorly.

Elytra subquadrate, slightly wider than pronotum, widest behind middle, lateral sides moderately arcuate, at suture shorter than pronotal length at midline, at sides distinctly longer than pronotum at midline; surface lacking microsculpture; punctuation coarse and dense; pubescence short and dense, directed obliquely posteriorly.

Abdomen weakly constricted at base, widest at level of tergites 5 and 6, bases of tergites 3-5 each with deep transverse impression, impressions smooth and impunctuate; tergal punctuation very fine and sparse, surface without microsculpture; pubescence relatively short and moderately dense.

Male. Aedeagus as in Figs 9-10. Female. Spermatheca as in Fig. 11.

Remarks. *Gnypeta murraiensis* sp.n. is closely related to *G. modesta celebensis* PACE and *G. sabangensis* PAŚNIK, but it may be distinguished from both this species by the less transverse pronotum, the coarser pronotal and elytral punctuation, the nearly impunctuate abdomen and by the shape of genitalia.

Material examined: Holotype: ♂: Australia, Torres Strait, Murray Is., 22.VII.1974, forest leaf letter (BMNH). Paratypes: ♂: same data as holotype (ISEA); 2♂♂, 2♀♀: same data as holotype (BMNH).

***Gnypeta solomonensis* spec.nov. (Figs 12-14)**

Description.

Body. Length 3.0-3.1 mm. Body convex, parallel-sided, shiny; head and pronotum red, elytra brown with anterior and posterior margins red, abdomen red with tergite 6 black, legs and antennae yellow.

Head circular in outline, convex, shiny, narrowly and shallowly impressed medially; widest across eyes; eyes large, moderately protruding from lateral contours of head, length of each seen from above subequal to that of postocular region; temples broadly arcuately narrowed to hind angles; surface of head without microsculpture; punctuation relatively coarse and dense; pubescence short and moderately dense, directed medially.

Antennae long, weakly increasing in width apically, extending to middle of elytra, antennomere 3 longer than 2, antennomeres 4-8 longer than wide, decreasing in length, antennomeres 9-10 quadrate, antennomere 11 nearly coniform.

Pronotum slightly transverse, convex, widest in apical third, lateral sides sinuately narrowed to hind angles; before base with small and shallow transverse impression; surface without microsculpture; punctation relatively coarse, dense and asperate; pubescence short and moderately dense, at midline directed anteriorly.

Elytra subquadrate, slightly wider than pronotum, widest behind middle, lateral sides moderately arcuate, at suture as long as pronotal length at midline, at sides distinctly longer than pronotum at midline; surface lacking microsculpture; punctation relatively coarse and dense, distinctly coarser than on pronotum; pubescence short and dense, directed obliquely posteriorly.

Abdomen weakly constricted at base, widest at level of tergites 5 and 6, bases of tergites 3-5 each with deep transverse impression, impressions smooth and impunctate; tergal punctuation coarse and dense, surface without microsculpture; pubescence relatively short and moderately dense.

Male. Aedeagus as in Figs 12-13. Female. Spermatheca as in Fig. 14.

Remarks. *Gnypeta solomonensis* sp.n. is similar to *G. insulana* (FAIRMAIRE), from which it can be distinguished by the coarser pronotal and elytral punctuation, the less protruding eyes, the less transverse pronotum, the denser abdominal punctuation and by the shape of aedeagus.

Material examined: Holotype: ♂: Solomon Islands, Kolombangara, Nr. Kuzi, 6-9.IX.1965, coll. Isiah, forest litter (BMNH). Paratype: ♀: Solomon Islands, Kolombangara, Nr. Kuzi, 3-8.IX.1965, P.N. Lawrence, forest litter (BMNH).

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Zusammenfassung

Folgende 5 Arten der Gattung Staphylinidengattung *Gnypeta* THOMSON wurden neu für die Wissenschaft beschrieben und mit nahestehenden Arten differenzialdiagnostisch verglichen: *Gnypeta austeni* sp.n., *G. densepunctata* sp.n., *G. evansi* sp.n., *G. murraiensis* sp.n. and *G. solomonensis* sp.n.

References

BERNHAUER M. & O. SCHEERPELTZ (1926): Staphylinidae VI. — In: JUNK W. & S. SCHENKLING (Eds): Coleopterorum Catalogus, pars 82, Berlin: 499-988.

CAMERON M. (1933): Staphylinidae (Coleoptera) from Mount Kinabalu. — J. Fed. Malay States Mus. **17**: 338-360.

CAMERON M. (1939): The Fauna of British India, including Ceylon and Burma. Coleoptera, Staphylinidae, vol. **4** — Taylor & Francis, London: 1-691.

CAMERON M. (1950): New species of Staphylinidae (Coleoptera) from the Malay Peninsula. — Ann. Mag. Nat. Hist. **12**: 89-131.

FAIRMAIRE L. (1849): Essai sur les Coléopteres de la Polynésie. — Rev. Mag. Zool. (2) **1**: 277-291.

PACE R. (1984a): Aleocharinae della Thailandia e della Birmania riportate da G. de Rougemont (Coleoptera, Staphylinidae). — Boll. Mus. civ. St. Nat. Verona **11**: 427-468.

PACE R. (1984b): Aleocharinae dell'Asia sudorientale raccolte dal Dr. Osella (Coleoptera, Staphylinidae). — Boll. Mus. civ. St. Nat. Verona **11**: 481-491.

PACE R. (1986): Aleocharinae dell'Asia sudorientale raccolte da G. de Rougemont (Coleoptera, Staphylinidae). — Boll. Mus. civ. St. Nat. Verona **13**: 139-237.

PACE R. (1987): Aleocharinae dello Sri Lanka raccolte da Marc Tronquet (Coleoptera, Staphylinidae). — Boll. Mus. civ. St. Nat. Verona **14**: 315-338.

PACE R. (1989): Aleocharinae della Thailandia (Coleoptera, Staphylinidae). — Boll. Mus. civ. St. Nat. Verona **16**: 227-268.

PACE R. (1990a): Nuove Aleocharinae Orientali (Coleoptera, Staphylinidae). — Mus. civ. St. Nat. Verona **17**: 127-180.

PACE R. (1990b): Aleocharinae delle Filippine. 82 contributo alla conoscenza delle Aleocharinae. — In: BERTI N. (Ed.): Miscellanées sur les Staphylins. Mémoires du Muséum national d'Histoire naturelle (A) **147**: 57-113.

PACE R. (1991): La sottofamiglia Aleocharinae della Nuova Caledonia (Coleoptera, Staphylinidae). — Mem. Soc. ent. italiana **70**: 79-170.

PACE R. (2000): Aleocharinae di Papua-Nuova Guinea (Coleoptera, Staphylinidae) (156 Contributo alla conoscenza delle Aleocharinae). — Bull. Inst. Royal Sci. Nat. Belgique, Entomologie **70**: 109-163.

PAŚNIK G. (2002): Four new species of the genus *Gnypeta* THOMSON, 1858 from the Oriental Region (Coleoptera, Staphylinidae, Aleocharinae). — Rev. suisse Zool. **109** (4): 705-713.

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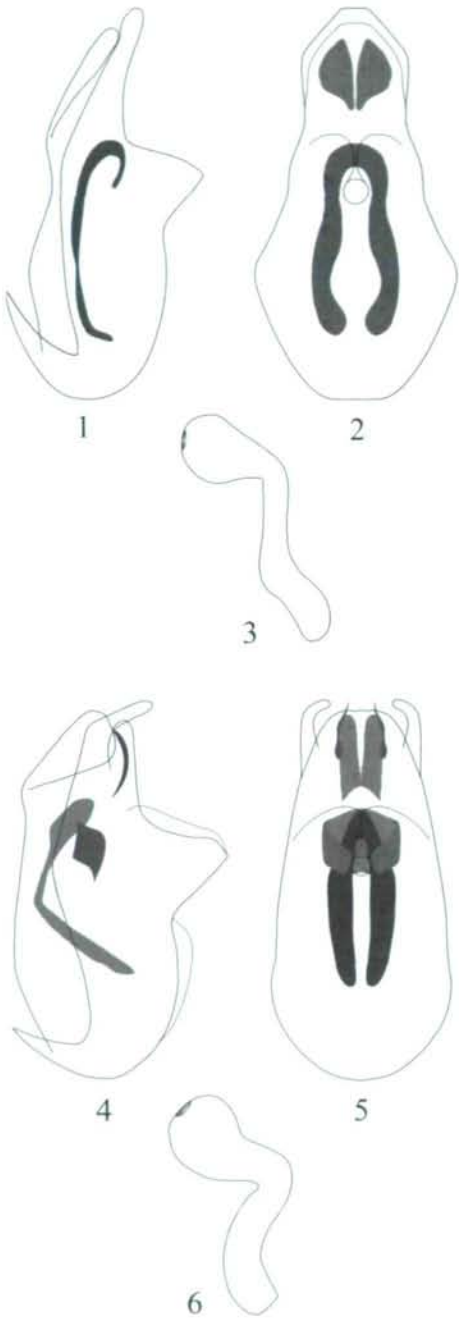
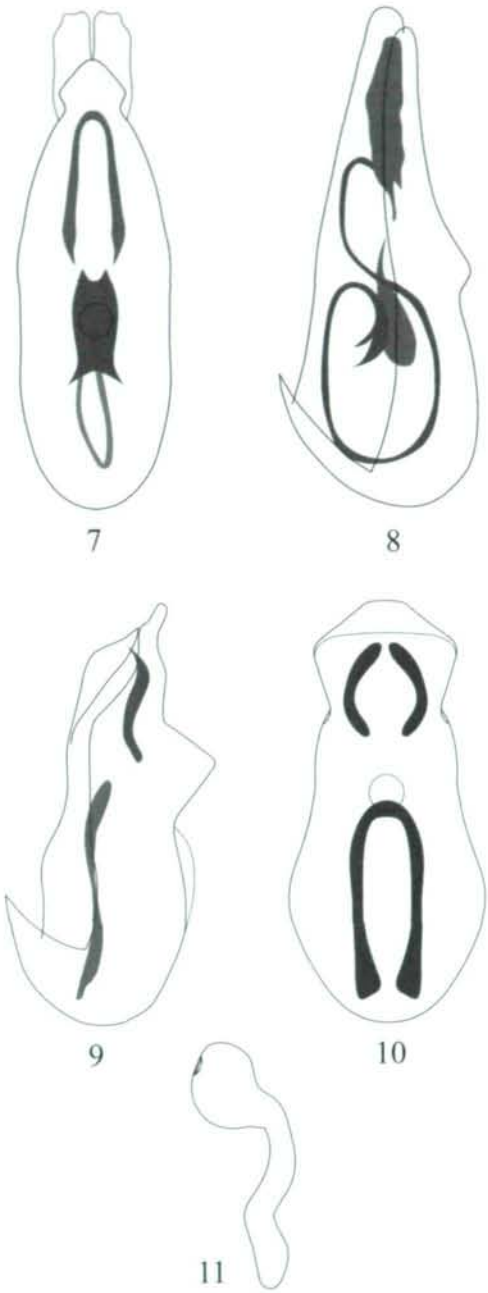
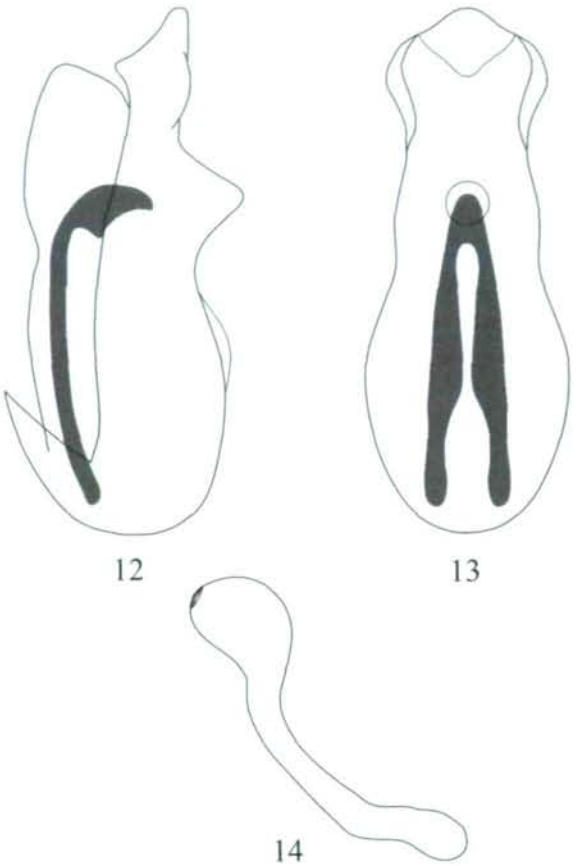


Figs 1-3: *Gnypeta austeni* sp.n.: aedeagus in lateral view (**1**), aedeagus in ventral view (**2**), spermatheca (**3**). **Figs 4-6**: *Gnypeta densepunctata* sp.n.: aedeagus in lateral view (**4**), aedeagus in ventral view (**5**), spermatheca (**6**).



Figs 7-8: *Gnypeta evansi* sp.n.: aedeagus in lateral view (**7**), aedeagus in ventral view (**8**).
Figs 9-11: *Gnypeta murraiensis* sp.n.: aedeagus in lateral view (**9**), aedeagus in ventral view (**10**), spermatheca (**11**).



Figs 12-14: *Gnypeta solomonensis* sp.n.: aedeagus in lateral view (**12**), aedeagus in ventral view (**13**), spermatheca (**14**).