

Fig. 21. *Geothelphusa lanyu*, new species. Holotype male, 20.2 by 15.8 mm. a: dorsal view; b: frontal view; c: ventral view of right G1; d: dorsal view of right G1; e: terminal segment of G1; f: ventral view of right G2. Scale = 1.0 mm.

margin of the G1 subterminal segment has a tooth and the terminal segment is straight (curved inwards in *G. lutao*), with the total length of the G1 being about 7.4 times that of the terminal segment (about 5.7 times in *G. lutao*).

**Etymology.** - The species is named after the type locality, and the name is used as a noun in apposition.

***Geothelphusa nanhsi*, new species**

(Fig. 22)

**Material examined.** - Holotype - Male, 23.3 by 18.3 mm (NTOU F10198), TAINAN HSIEN: Nanhsi, coll. J.Y. Shy & W.L. Tsay, 7.viii.1992.

Paratypes - TAINAN HSIEN: Nanhsi - 2 males, 3 females (only one mature) (NTOU F10086), coll. J.Y. Shy & W.L. Tsay, 7.viii.1992.

**Diagnosis.** - Carapace smooth, frontal margin vaguely divided into 2 lobes. Anterolateral region rough. Anterolateral crest distinct, lined with indistinct low granules, epibranchial tooth very small. Distance between tip of male abdomen and anterior margin of sternite 4 about 1.3 times length of sternites 1-3. Length of second ambulatory leg about 2.0 times carapace length. Male abdominal segment 7 bell-shaped, length of segment 6 about 0.9 times length. Outer proximal margin of G1 subterminal segment dilated, with very a low tooth, inner proximal margin straight; terminal segment gently curved inwards, spinules on distal three-fifths (Fig. 22c-e).

**Coloration.** - Carapace, chelae and ambulatory legs orangish- to light yellow.

**Habitat.** - Lives in shallow burrows under stones near streams.

**Size.** - Largest male 23.3 by 18.3 mm (NTOU F10198); largest female 22.6 by 17.4 mm (NTOU F10086).

**Distribution.** - Southwestern Taiwan.

**Remarks.** - This species is allied to *G. candidiensis* s. str., but it distinguished by the following aspects: 1. the carapace is more convex transversely and longitudinally, with the carapace width and length being about 2.0 and 1.6 times of the carapace depth respectively; 2. the male abdominal segment 6 is longer, the width being about 2.0 times that of the length (about 2.5 times in *G. candidiensis*); and 3. the G1 terminal segment is more slender, the length being about 2.3 times that of the width (about 1.9 times in *G. candidiensis*).

**Etymology.** - The species is named after the type locality, and the name is used as a noun in apposition.

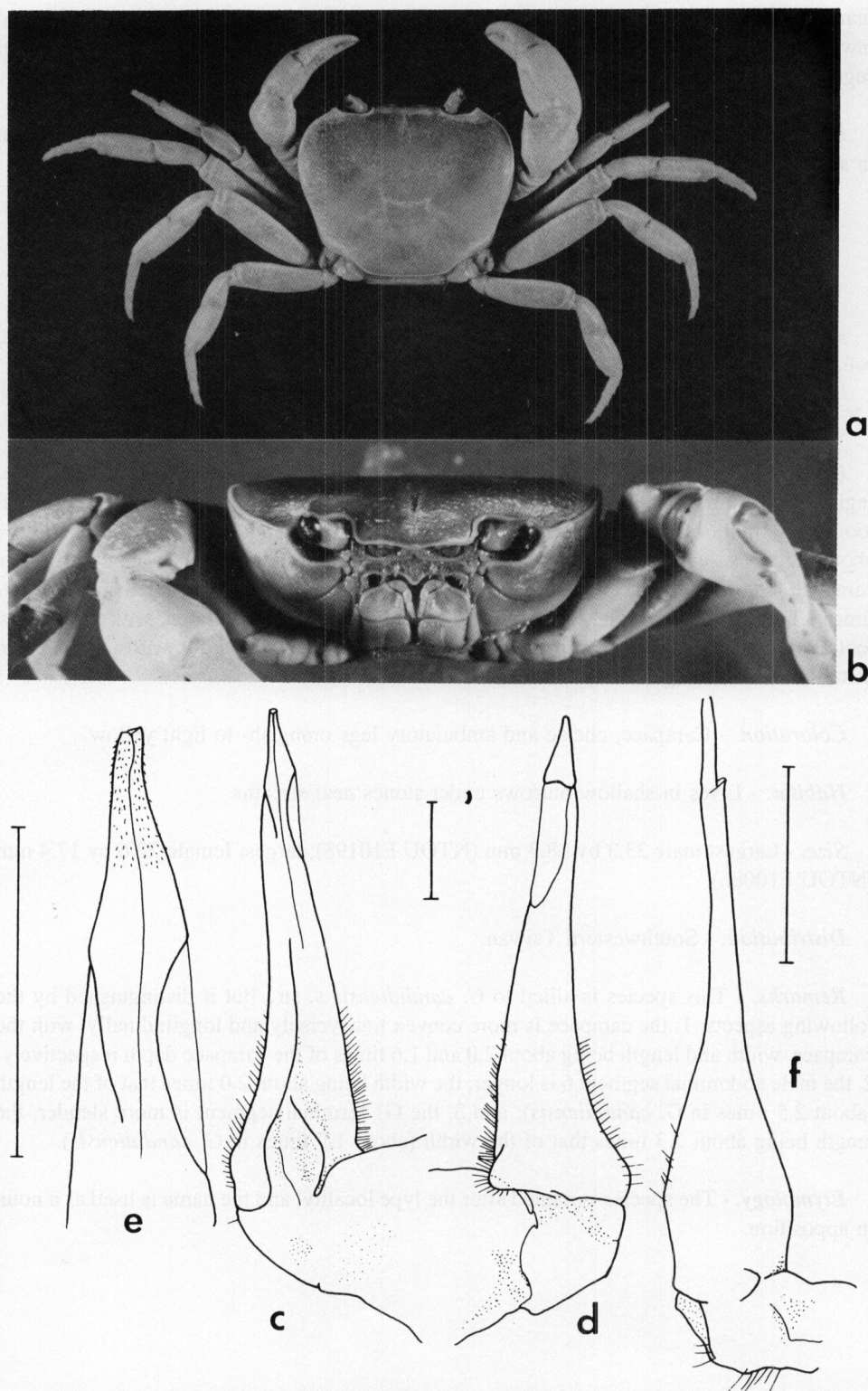


Fig. 22. *Geothelphusa nanhsi*, new species. Holotype male, 23.3 by 18.3 mm. a: dorsal view; b: frontal view; c: ventral view of right G1; d: dorsal view of right G1; e: terminal segment of G1; f: ventral view of right G2. Scale = 1.0 mm.

***Geothelphusa tawu*, new species**

(Fig. 23)

**Material examined.** - Holotype - Male, 18.4 by 14.2 mm (NTOU F10203), TAITUNG HSIEN: Tawu, coll. J.Y. Shy & W.L. Tsay, 24.viii.1992.

Paratypes - TAITUNG HSIEN: Tawu - 3 females (only one mature) (NTOU F10109), coll. J.Y. Shy & W.L. Tsay, 24.viii.1992.

**Diagnosis.** - Carapace with fine concave pits. Anterolateral crista distinct, lined with low, small granules. Gastric region smooth; anterolateral region rough, with fine striae. Distance between tip of male abdomen and anterior margin of sternite 4 about 1.1 times length of sternites 1-3. Fingers of chela forming long, oval gape when closed. Length of second ambulatory leg about 2.0 times carapace length, dactylus about 1.2 times longer than propodus. Width of male abdominal segment 7 about 1.2 times length, width of male abdominal segment 6 about 1.4 times width of segment 7. G1 slightly curved outwards, with small tooth on outer proximal margin of subterminal segment; terminal segment slightly curved inwards (Fig. 23c-e).

**Coloration.** - Not known.

**Habitat.** - Live under stones and boulders of streams.

**Size.** - Largest male 18.4 by 14.2 mm (NTOU F10203); largest female 16.3 by 12.2 mm (NTOU F10109).

**Distribution.** - Southern Taiwan.

**Remarks.** - This species is allied to *G. ferruginea* and *G. lutao*, but it distinguished by the following aspects: 1. the carapace width and length is about 2.2 and 1.7 times that of the depth in *G. lutao* and *G. tawu* (about 2.3 and 1.8 times respectively in *G. ferruginea*); 2. the distance between the tip of the male abdomen and anterior margin of sternite 4 about equal to the length of sternites 1-3 in *G. ferruginea* and *G. tawu* (about 1.6 times in *G. lutao*); 3. the proportions of the length of the G1 synovial membrane to the width are different (2.7, 3.8 and 3.6 times in *G. lutao*, *G. ferruginea* and *G. tawu* respectively); and 4. the G1 terminal segment is curved inwards in *G. lutao* and *G. tawu* (curved outwards in *G. ferruginea*).

**Etymology.** - The species is named after the type locality, and the name is used as a noun in apposition.

***Geothelphusa lutao*, new species**

(Fig. 24)

**Material examined.** - Holotype - Male, 21.4 by 16.2 mm (NTOU F10200), TAITUNG HSIEN: Lutao, coll. P.K.L. Ng & C.H. Wang, 6.vi.1993.

Paratypes - TAITUNG HSIEN: Lutao - 11 males, 3 females (NTOU F10104), coll. P.K.L. Ng & C.H. Wang, 6.vi.1993. — Lutao - 6 males, 13 females (TMCD 2857), 1 male, 1 female (ZRC 1994.4225), coll. P.K.L. Ng & C.H. Wang, 6.vi.1993.

**Diagnosis.** - Carapace with fine concave pits. Cervical groove shallow, faint. Gastric region smooth, anterolateral region rough, with fine striae. Anterolateral crista distinct, lined with