

Occurrence of *Cryptarcha kapfereri* REITTER in Japan, with Notes on *Cryptarcha inhalita* REITTER (Coleoptera, Nitidulidae)

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Abstract A nitidulid species currently treated as *Cryptarcha inhalita* REITTER, by HISAMATSU (1985) and many other Japanese coleopterists, is revealed to be a misidentification of *Cryptarcha kapfereri* REITTER. The distinction between them is discussed with illustrations of male genitalia and other important diagnosis of each species, and is shown in the key to the Japanese species of the genus *Cryptarcha*. *Cryptarcha kapfereri* REITTER is recorded for the first time from Japan.

The identity of “*Cryptarcha inhalita* REITTER, 1884” is well known for many Japanese coleopterists, because this species is illustrated in the most popular Japanese illustrated book, “The Coleoptera of Japan in Color, Vol. III” by Sadanari HISAMATSU (1985). In the course of my study on the nitidulid fauna of Japan, I noticed that *Cryptarcha inhalita* REITTER (sensu HISAMATSU, 1985) was a misidentification of *Cryptarcha kapfereri* REITTER, 1913, which was described from Far Eastern Siberia, and unknown from any other areas besides the type locality. As a consequence of examination of Sadanari HISAMATSU’s nitidulid collection preserved in Ehime University Museum (EUM), the specimens which should be identified as the true *Cryptarcha kapfereri* REITTER were already collected in several localities in Japan, but regarded as an intraspecific variation of *C. strigata* (FABRICIUS).

In the following lines, I will provide diagnostic characters of both the species with their salient figures, and a key to the species of Japanese *Cryptarcha*. The species, *Cryptarcha kapfereri* REITTER, is recorded here for the first time from Japan.

Cryptarcha kapfereri REITTER, 1913

[Japanese name: Chibi-ko’oni-keshikisui]

(Figs. 1, 3, 5, 7, 9, 11)

Cryptarcha (*Cryptarchula*) *Kapfereri* REITTER, 1913: 123 (type locality: Sotka-Gora, Ostsibirien).

Cryptarcha kapfereri: KIREJTSHUK, 1992: 203, pl. 96, figs. 6–8 [in key, figured].—JELÍNEK & AUDISIO, 2007: 468 [catalogued].

Cryptarcha inhalita: HISAMATSU, 1985: 195, pl. 31, fig. 27 [in key, photo], nec *Cryptarcha inhalita* REITTER, 1884.



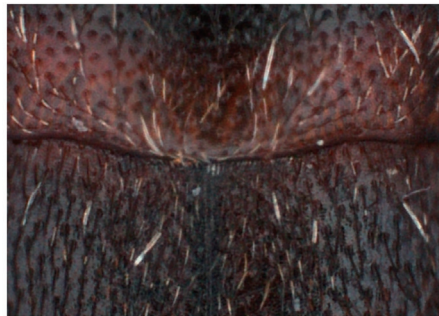
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4

Figs. 1-4. *Cryptarcha* spp. — 1, 3, *Cryptarcha kapfereri* REITTER (♂, Chôjubaru, Ôita Pref.); 2, 4, *Cryptarcha inhalita* REITTER (♂, Takamine, kutchan, Hokkaido). — 1, 2, Dorsal habitus; 3, 4, scutellum.

Diagnosis. Length 2.1–2.7 mm. Body brown. Each elytron always with two yellowish markings (Fig. 11), which are rarely connected with each other. Elytra about as long as wide, conjointly 0.96–1.04 times as long as wide ($n=5$); pubescence dual, arranged in the same manner as those of the preceding species. Subsutural line (Fig. 11) moderate in length, 0.63–0.67 times as long as elytral length ($n=5$). Scutellum (Fig. 3) moderate in size, distinctly visible from above. Male genitalia with tegmen (Fig. 5) gently narrowing in apical 3/7 to widely truncated apex; to the contrary, median lobe

(Fig. 7) abruptly narrowing to pointed apex in apical 2/7. Prosternal process (Fig. 9) subparallel-sided, apical margin truncated. Abdominal sternite VII of female simple.

Specimens examined. JAPAN: [HOKKAIDO] 1 ex., Sapporo, 3-VIII-1967, M. TOMOKUNI leg. [AOMORI] 6 exs., Tsubai, Fukaura-chô, 30-VIII-2007, A. & R. ABE leg. [GUNMA] 1 ♂, Mt. Tanigawa, 29-VIII-1963, S. HISAMATSU leg. [NAGANO] 1 ex., Karuizawa, 23-VII-1951, S. HISAMATSU leg. [GIFU] 2 exs., Mt. Kinka, 17-VI-1947, D. MATSUSITA leg.; 1 ex., 10-VI-1947, K. OHBAYASHI leg.; 1 ex., Mt. Kinkazan, 2-VI-1973, M. SAKAI leg.; 1 ex., Sakaguchi, 4-VI-1973, same collector as the preceding. [SHIMANE] 1 ex., Hoki-Daisen, 17-VII-1933, H. ARAKI leg. [EHIME] 1 ex., Saragamine, 22-VIII-1954, M. MIYATAKE leg.; 1 ex., same locality and collector as the preceding, 11-VII-1955. [TSUSHIMA Is.] 2 exs., Izuhara, Nagasaki Pref., 16~19-VII-1960, M. SATÔ leg. [ÔITA] 11 exs., Chôjabaru, Kuju-chô, 11-VII-1968, S. KINOSHITA leg.; 1 ex., Handa Highlands, Mt. Kujû, 25-V-1975, H. IRIE leg. [KUMAMOTO] 1 ex., Mt. Ichifusa, 3-VIII-1974, M. SAKAI leg.

Distribution. Russia (Far East) and Japan (new record).

Notes. As was mentioned above, many Japanese authors have regarded this species as "*Cryptarcha inhalita*". *Cryptarcha kapfereri* correctly identified is first recorded here from Japan.

Cryptarcha inhalita REITTER, 1884

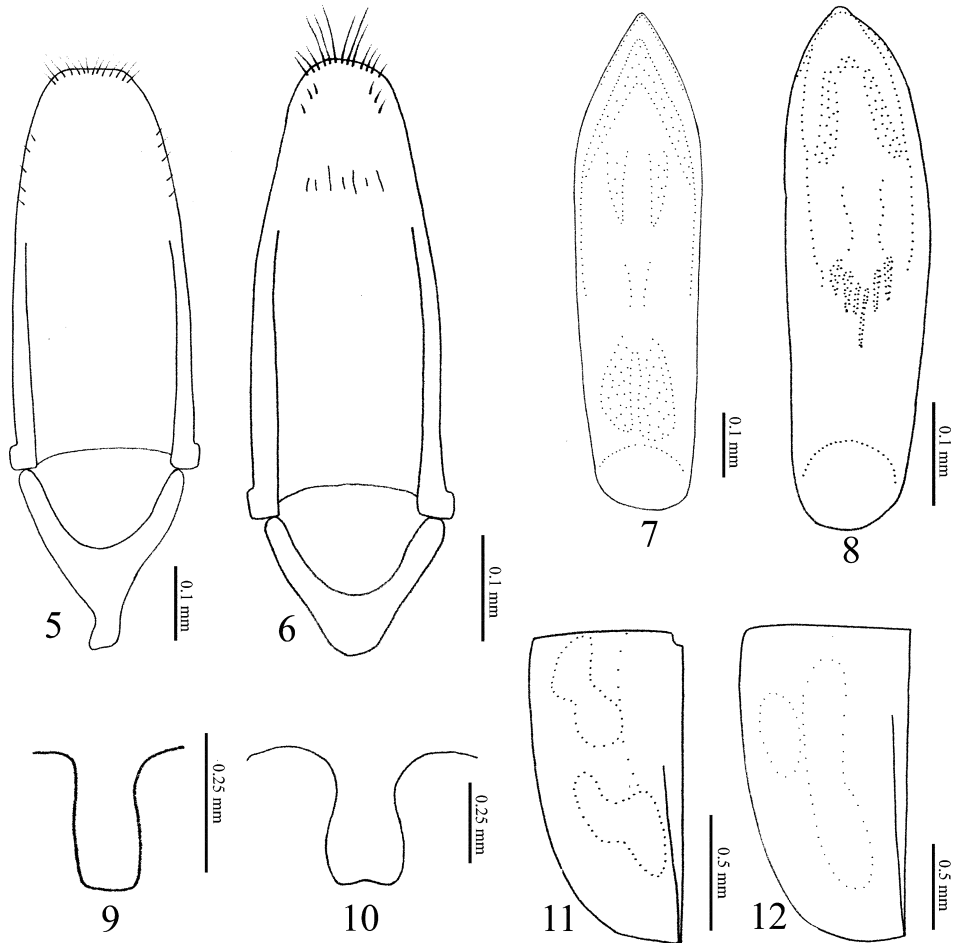
[Japanese name: Chairô-ko'oni-keshikisui]

(Figs. 2, 4, 6, 8, 10, 12)

Cryptarcha inhalita REITTER, 1884: 269 [in key] (type locality: Fukahori bei Nagasaki, Japan); 1985 a: 79 [described]; 1985 b: 175 [listed]; — KIREJTSHUK, 1987: 69, pl. 2, figs. 5-9 [redescribed, figured, in key]; 1992: 203, pl. 96, figs. 1-5 [in key, figured]; — JELÍNEK & AUDISIO, 2007: 468 [catalogued].

Diagnosis. Length 2.1-3.8 mm. Body brown, antennae and legs lighter. Each elytron usually with two vague, dark-brown markings (Fig. 12), of which one is very elongated, situated on the middle, the other is oval, situated at the outside of the former, though these markings occasionally disappeared completely. Elytra about as long as wide, conjointly 0.96-1.00 times as long as wide (n=5); pubescence dual: suberect and setulose ones forming distinct rows, and fine and long ones occurring between setae. Subsutural line (Fig. 12) long, 0.71-0.84 times as long as elytral length (n=5). Scutellum (Fig. 4) small, scarcely visible from above. Prosternal process (Fig. 10) moderately dilated to vaguely emarginated apex. Male genitalia with tegmen (Fig. 6) definitely narrowing to rounded apex in apical 3/7; median lobe (Fig. 8) indefinitely narrowing to apex in apical 2/7. Abdominal sternite VII of female simple.

Specimens examined. RUSSIA: 3 exs., Vladivostok, Primorskij Kray, 5-VII-1997, A. SAITO leg. JAPAN: [HOKKAIDO] 6 exs., Mt. Esan, 16-VII-1970, M. SAKAI leg.; 1 ♂, 1 ♀, Takamine, kutchan-chô, Abuta-gun, 27-V~3-VI-2009, banana trap, A.



Figs. 5–12. Body parts of *Cryptarcha* spp. — 5, 7, 9, 11, *Cryptarcha kapfereri* REITTER (Chôjabaru, Ôita Pref.); 6, 8, 10, 12, *Cryptarcha inhalita* REITTER (6, 8, 10: Takamine, kutchan, Hokkaido; 12: Primorskij Kray, Russia). 5, 6, Tegmen; 7, 8, median lobe; 9, 10, prosternal process; 11, 12, left elytron.

KASHIZAKI leg.; 1 ex., same locality and collector as the preceding, 20~24-VI-2009. [AOMORI] 1 ex., Tsubai, Fukaura-chô, 30-VIII-2007, A. & R. ABE leg. [NIIGATA] 2 exs., Kurokawa, 12-VIII-1977, K. BABA leg. [SAITAMA] 1 ex., Urawa, 17-V-1953, H. KAJIMURA leg. [EHIME] 1 ex., Matsuyama City, 28-V-1973, K. ITO leg. [FUKUOKA] 1 ex., Jôyama, Munakata City, 9-VI-1985, K. KIDO leg. [KUMAMOTO] Kôshi-machi, Kikuchi-gun, 9-V-1987, K. FUJITA leg. [MIYAZAKI] 1 ex., Mt. Takachiho~Mt. Kirishima, 16-VII-1938, H. ARAKI leg.

Distribution. Russia (Far East), China (Shaanxi), Japan and Oriental Region.

Notes. In Sadanari HISAMATSU's nitidulid collection of EUM, some specimens of *C. inhalita* were found in a box mingling among the specimens sorted out as *C. strigata* (FABRICIUS). It is presumed that he erroneously recognized *C. inhalita* as one of the intraspecific variation of *C. strigata*.

Japanese species of *Cryptarcha* including these two species is keyed as follows:

Key to the Japanese Species of the Genus *Cryptarcha*

1. Elytra with rows of hairs.2
— Elytra without rows of hairs.5
2. Elytra usually with infusate dark markings, though occasionally wanting. Scutellum invisible from dorsal view.*C. inhalita* REITTER
— Elytra usually with distinct light markings, though rarely wanting. Scutellum visible from dorsal view.3
3. Prosternal process strongly dilated, with apex emarginated. Each elytron with or without yellowish markings, humeral one of which is 3-branched. Abdominal sternite VII of female with circular, impunctate area. ...*C. strigata* (FABRICIUS)
— Prosternal process slightly dilated or parallel-sided, with apex truncated or vaguely emarginate. Each elytron always with distinct yellowish markings, with humeral one not 3-branched. Abdominal sternite VII of female without circular, impunctate area.4
4. Elytra 1.00–1.10 times as long as wide; each elytron with 6 oblong yellowish spots (posterior 3 spots rarely connected with one another). ...*C. maculata* REITTER
— Elytra 0.96–1.04 times as long as wide; each elytron with 2 yellowish spots at the most.*C. kapfereri* REITTER
5. Dorsal surface of body feebly shiny. Abdominal sternite VII of female with a deep, circular impression at the middle. Distribution: Japan (Amami-Ôshima Is. and Okinawa Is.).*C. okinawensis* HISAMATSU
— Dorsal surface of body strongly shiny. Abdominal sternite VII of female with a longitudinal carination at the middle. Distribution: Japan (Honshû, Shikoku, Kyûshû), Russia (Far East), China (Fujian, Hebei, Yunnan), Taiwan and Korea.*C. lewisi* REITTER

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要 約

久松定智: *Cryptarcha kapfereri* REITTER の日本からの記録, ならびに *Cryptarcha inhalita*

REITTER についての覚書 (コウチュウ目ケシキスイ科). — *Cryptarcha kapfereri* は, 1913 年, REITTER によって東シベリアより記載され, 以後他の地域からの記録はない. 筆者は *Cryptarcha* 属の研究過程において, 従来日本の研究者間でチビコオニケシキスイ “*Cryptarcha inhalita* REITTER” として扱われていた種は, 実はこの *C. kapfereri* であり, 一方, “真の” *C. inhalita* は, REITTER によって 1884 年, 長崎から記載されて以後, これまで正しく図示されことのない種であることが分かった. 筆者はこの機会に, 両種の重要な識別点を明らかにするとともに, 背面図, 雄交尾器, 前胸腹板突起などの図を添えて, 簡潔に再記載した. *C. kapfereri* は日本からはじめて正式に記録される. また和名に関して, チャイロコオニケシキスイ (新称) を *C. inhalita* に, チビコオニケシキスイを *C. kapfereri* にあてることを提唱する.

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