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HYDRAENIDAE: II. Synopsis of *Ochthebius* LEACH from Mainland China, with descriptions of 23 new species

(Coleoptera)

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Abstract

The species of *Ochthebius* LEACH (Coleoptera: Hydraenidae) from Mainland China are revised taxonomically; a total of 41 species is recorded; 23 species are described as new to science: *O.* (*Asiobates*) *flagellifer*, *O.* (*Enicocerus*) *exiguus*, *O.* (*E.*) *nigrasperulus*, *O.* (*E.*) *obesus*, *O.* (*E.*) *rotundatus*, *O.* (s.str.) *andreasi*, *O.* (s.str.) *andreasoides*, *O.* (s.str.) *argentatus*, *O.* (s.str.) *asiobatoides*, *O.* (s.str.) *asperatus*, *O.* (s.str.) *caligatus*, *O.* (s.str.) *castellanus*, *O.* (s.str.) *enicoceroides*, *O.* (s.str.) *fujianensis*, *O.* (s.str.) *gonggashanensis*, *O.* (s.str.) *guangdongensis*, *O.* (s.str.) *hainanensis*, *O.* (s.str.) *jilanzhui*, *O.* (s.str.) *sichuanensis*, *O.* (s.str.) *stastnyi*, *O.* (s.str.) *wangmiaoi*, *O.* (s.str.) *wuzhishanensis*, and *O.* (s.str.) *yaanensis*. One new synonymy is proposed: *Ochthebius* (s.str.) *opacipennis* CHAMPION, 1920 (= *O. exilis* PU, 1958). *Ochthebius orientalis* JANSSENS, 1962 is considered as a possible junior synonym of *O. flexus* PU, 1958. *Ochthebius salebrosus* PU is transferred from subgenus *Enicocerus* STEPHENS to *Ochthebius* s.str.

The genus *Ochthebius* is recorded for the first time from Gansu and Fujian. *Ochthebius klapperichi* JÄCH is recorded for the first time from China (Yünnan) and Myanmar. *Ochthebius unimaculatus* PU is recorded for the first time from Gansu. *Ochthebius lobatus* PU is recorded for the first time from Jilin, Liaoning and Yünnan. *Ochthebius marinus* (PAYKULL) is recorded for the first time from Nei Mongol and Shandong. *Ochthebius opacipennis* is recorded for the first time from Myanmar. *Ochthebius orientalis* is recorded from Tajikistan for the first time. *Protochthebius* PERKINS is recorded for the first time from China.

Distribution maps for all species are provided.

Holotypes and/or paratypes of all nine species described by PU (1942, 1958) were examined; however, aedeagi of all holotypes and almost all paratypes examined were found to be missing. Therefore, the species concepts for *Ochthebius flexus* and *O. lobatus* still remain enigmatic. Furthermore, *O. octofoveatus* PU and *O. salebrosus* were described from single females and their specific assignations also remain ambiguous.

Key words: Coleoptera, Hydraenidae, *Ochthebius*, *Protochthebius*, taxonomy, China, Myanmar, Tajikistan, new species, new records.

Introduction

Four genera of Ochthebiinae occur in Mainland China: *Aulacochthebius* KUWERT, *Edaphobates* JÄCH & DÍAZ, *Ochthebius* LEACH, and *Protochthebius* PERKINS.

The monotypic genus *Edaphobates* obviously is endemic to China. Only one species of *Aulacochthebius* (*A. humanensis* PU) has so far been recorded from Mainland China; however, several species of this poorly studied genus were collected in the course of the China Water

Beetle Survey (CWBS) in Yünnan and Hainan. Two specimens of the genus *Protochthebius*, hitherto unrecorded from China, recently were collected in Sichuan (CWBS locs. 237, 346).

A total of 17 species of *Ochthebius* LEACH was listed from Mainland China by JÄCH (1995). One of these species, *O. rugulosus* WOLLASTON, was removed later from that list and replaced by *O. lurugosus* JÄCH (see JÄCH 1998a). In the present paper, 24 species are added; one of these 24 species was known only from Afghanistan and India, and 23 species are described as new to science. One species formally is synonymized.

The *Ochthebius* fauna of Taiwan already was revised by JÄCH (1998b), who recorded seven species, one of which remains undescribed.

Material and methods

In 2001 I had an opportunity to visit the insect collection of the Zhongshan University, Guangzhou (ZUG), where numerous important type specimens of Hydraenidae described by Zhelong Pu are deposited. However, it must be noted, that almost all male type specimens described by Pu (including those deposited in UMS) lack their aedeagi. Probably the aedeagi had been extracted and slide mounted by Pu, who eventually stored them elsewhere.

Body lengths are measured from tip of labrum to elytral apex.

Acronyms & CWBS localities:

CBB	Coll. D.S. Boukal, České Budějovice
CASS	Chinese Academy of Sciences, Institute of Applied Ecology, Shenyang
CNC	Coll. Nakane, Chiba-shi
CPE	Coll. Pütz, Eisenhüttenstadt
CWBS	China Water Beetle Survey
DSA	Dorsal Subapical Angle of aedeagal main piece (sensu JÄCH 1999)
ISNB	Institut royal des Sciences naturelles de Belgique, Bruxelles
MHNG	Muséum d'Histoire naturelle, Genève
MHNP	Muséum national d'Histoire naturelle, Paris
MTD	Museum für Tierkunde, Dresden
NHML	The Natural History Museum, London [formerly: British Museum (Natural History)]
NMB	Naturhistorisches Museum, Basel
NME	Naturkundemuseum, Erfurt
NMW	Naturhistorisches Museum, Wien
NRS	Naturhistoriska Riksmuseet, Stockholm
PL	Projected Length of aedeagus (sensu JÄCH 1998a)
UMS	Dept. of Entomology, University of Minnesota, St. Paul
SIW	National Museum of Natural History, Smithsonian Institution, Washington, D.C.
ZUG	Department of Biology, Zhongshan University, Guangzhou [formerly: Sun Yatsen University, Canton]

CWBS loc. 9: **Beijing Municipality**; Ming Tombs; small, unshaded rain puddles; 1.VII.1992; leg. M.A. Jäch.

CWBS loc. 59: **Yünnan Province**; Lijiang Autonomous Prefecture; Lijiang County; 10 km SW Lijiang City; Monastery, surrounded by a patch of original vegetation; spring, 2700 m a.s.l.; 5.VII.1994; leg. H. Schillhammer & L. Ji; (see JÄCH & JI 1995: Fig. 19).

CWBS loc. 95: **Jilin Province**; Yanbian Korean Autonomous Prefecture; Antu County; Changbai Shan Biosphere Reserve; ca. 62 km N Baihe City; Erdao Bai He [river], including pools on gravel bank, ca. 1750 m a.s.l.; 20.VIII.1994; leg. M.A. Jäch, L. Ji & M. Wang; (see JÄCH & JI 1995: Fig. 21).

CWBS loc. 98: **Liaoning Province**; Jinzhou City Region; Beizhen County; Yiwulü Shan, ca. 17 km NW Beizhen City; Sandao Gou He [river], where it enters the plain, 10 m wide, granite, including small pools on gravel bank, ca. 150 m a.s.l.; 23.VIII.1994; leg. M.A. Jäch, L. Ji & M. Wang; (see JÄCH & JI 1995: Fig. 22).

CWBS loc. 99: **Liaoning Province**; Jinzhou City Region; Beizhen County; Yiwulü Shan, ca. 17 km NW Beizhen City; Sandao Gou He [river] near CWBS loc. 98; several shallow pools, rain water or ground water, unshaded, mud, sand; 23.VIII.1994; leg. M.A. Jäch, L. Ji & M. Wang.

CWBS loc. 124: **Liaoning Province**; Benxi City Region; Benxi County; ca. 50 km SE Benxi City; 5 km S Xiamatang Village; near Aiguo Village; branch of an unnamed river, 3 - 4 m wide, slowly flowing, limestone, unshaded, gravel, mud, including rock pools, slightly polluted, 20°C, vegetation mainly composed of *Quercus* sp., *Robinia* sp. and *Salix* sp.; 26.IX.1994; leg. L. Ji & M. Wang; [locality number on label: 60].

CWBS loc. 135: **Shandong Province**; Tai'an Prefecture; Tai Shan Nature Reserve; 4 km N Tai'an City; Longtan Shuiku (= Dragon Pond Reservoir), granite, margin with stones, mud, decaying plant material, slightly polluted, ca. 15°C, surrounding vegetation composed of *Maackia* sp., *Populus* sp., *Quercus* sp. and *Platycladus* sp., ca. 200 m a.s.l.; 18.X.1994; leg. L. Ji & M. Wang; [locality number on label: 71].

CWBS loc. 148: **Liaoning Province**; Shenyang City Region; ca. 7 km NW Xinmin City; close to road No. 102; rain water and ground water pool, ca. 6 m wide, unshaded, 50 m a.s.l.; 2.VI.1995; leg. M. Wang.

CWBS loc. 192: **Hainan Province**; Qiongzhong County; Maoyang Town; River Changhua, ca. 40 m wide (river bed ca. 80 m wide), potamal, banks with gravel and sand, ca. 100 m a.s.l.; 17.I.1996; leg. M.A. Jäch, L. Ji & M. Wang (see JÄCH & JI 1998: Fig. 4).

CWBS loc. 201: **Hainan Province**; Sanya; ground water pools, partly brackish, near River Sanya, slightly above sea level; 20.I.1996; leg. M.A. Jäch, L. Ji & M. Wang (see JÄCH & JI 1998: Fig. 6).

CWBS loc. 218: **Sichuan Province**; Ya'an City Region; ca. 4 km E Ya'an City; small stream, ca. 0.5 m wide, near rice fields on steep-sloped hill, red soil, partly shaded by shrubs and trees, ca. 600 m a.s.l.; 7.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 219: **Sichuan Province**; Ya'an City Region; ca. 4 km E Ya'an City; rice fields near CWBS loc. 218; 7.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 221: **Sichuan Province**; Ya'an City Region; ca. 14 km N Ya'an City; near road to Shangli Town; river, ca. 5 - 8 m wide, with large rocks, some of these partly moss-covered, flowing through secondary forest, ca. 800 m a.s.l.; 8.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 223: **Sichuan Province**; Ya'an City Region; ca. 18 km N Ya'an City and 3 km N of monastery (Baima Qüan [= White Horse Spring]); small stream, ca. 2 - 3 m wide, clean and very cold, stones in stream partly moss-covered, unshaded, ca. 900 m a.s.l.; 9.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 224: **Sichuan Province**; Ya'an City Region; small ground water pool near CWBS loc. 223, with aquatic vegetation; 9.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 225: **Sichuan Province**; Ya'an City Region; ca. 16 km N Ya'an City and ca. 3 km N Shangli Town; small stream, ca. 0.5 m wide, tributary to CWBS loc. 223, ca. 950 m a.s.l.; 9.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 227: **Sichuan Province**; Ya'an City Region; Baoxing County; ca. 2 km NE Baoxing City; near the road from Baoxing City to Xinglong Town; branch of Donghe [= East River] (= tributary of Qingyi Jiang [= Green Coat River]), ca. 3 - 5 m wide, polluted (silted up) due to marble mines, ca. 1000 m a.s.l.; 10.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 228: **Sichuan Province**; Ya'an City Region; Baoxing County; ca. 5 km SW Baoxing City and 4 km N Shuangshi [= Twin Stones]; Xichuan He [river], ca. 5 m wide, with pebbles and cobbles, cold, fast flowing through forest, ca. 900 m a.s.l.; 11.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 233: **Sichuan Province**; Ya'an City Region; Tianqüan County; ca. 57 km W Ya'an City, 4 km W Xingou Village; at foot of Erlang Shan; small stream, ca. 1 - 2 m wide, cold and fast flowing through secondary forest, large stones, leaf packs, unpolluted, ca. 1600 m a.s.l.; 13.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 234: **Sichuan Province**; Ya'an City Region; Tianqüan County; ca. 57 km W Ya'an City, 4 km W Xingou village; very small puddle, on path near CWBS loc. 233, ca. 1600 m a.s.l.; 13.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 237: **Sichuan Province**; Ya'an City Region; Ya'an City; ca. 3 km N Feixian [= Flying Angel] Town; ca. 10 km NW Ya'an City; stream, ca. 3 m wide, warm and slowly flowing through cultivated land, with gravel, including pools near shore, ca. 700 m a.s.l.; 14.VI.1996; leg. L. Ji & M. Wang.

CWBS loc. 240: **Fujian Province**; Jianyuan Prefecture; Chong'an City Region; ca. 1 km W Wuyi Gong Village (= Shanqian, ca. 10 km S Chong'an City); residual pools in dry riverbed in steep valley, crystalline rock, 200 - 250 m a.s.l.; 15. and 18.I.1997; leg. H. Schönmann, L. Ji & M. Wang.

CWBS loc. 271: **Guizhou Province**; Bijie Prefecture; Bijie County; 5 km NW Bijie City; Dao Tian He [= Rice Field River] Reservoir, slightly polluted, ca. 1200 m a.s.l.; 28.VII.1997; leg. M. Wang.

CWBS loc. 280: **Guizhou Province**; Zunyi Prefecture; Zunyi City Region; 40 km N Zunyi City, near Sidu Town; small stream, ca. 0.5 wide, surrounded by rice fields, polluted, ca. 1200 m a.s.l.; 4.VIII.1997; leg. M. Wang.

CWBS loc. 281: **Guizhou Province**; Zunyi Prefecture; Zunyi City Region; 40 km N Zunyi City, close to CWBS loc. 280; pool, 3 m², polluted, ca. 1200 m a.s.l.; 4.VIII.1997; leg. M. Wang.

CWBS loc. 326: **Gansu Province**; Wudu Prefecture; Wen County; Bikou Town; near Dianba Village; river (Dong Gou), ca. 10 m wide, fast flowing through narrow valley, surrounded by secondary forest, slightly polluted, with boulders, sand and gravel, ca. 950 m a.s.l.; 15.VI.1998; leg. M. Wang.

CWBS loc. 329: **Nei Mongol Autonomous Region**; Zhaowuda Meng Prefecture; Wengniute Qi County; 120 km NNE Chifeng, surroundings of Wulanaodu Research Station; flat rain water pools in a meadow, filled with submerged vegetation, ca. 480 m a.s.l.; 22.VII.1998; leg. L. Ji, H. Schönmann, K. Schönmann & M. Wang.

CWBS loc. 334: **Sichuan Province**; Mao County; Jiuding Shan; ca. 8 km NE Mao Xian [= Fengyizhen], surroundings of Research Station of Chengdu Institute of Biology; mountain river, 2 - 3 m wide, fast flowing, very steep shores with dense vegetation (bushes), big crystalline boulders and gravel, cascades, unshaded, cold water, ca. 1900 m a.s.l.; 29.VII.1998; leg. L. Ji, H. Schönmann, K. Schönmann & M. Wang.

CWBS loc. 346: **Sichuan Province**; Leshan Prefecture; Emei Shan; ca. 10 km SW Emei City; beneath "Thunder Temple"; stream, 3 - 6 m wide, crystalline boulders, gravel and sand, cataracts and pools, warm water, slightly polluted, flowing through valley with steep slopes and secondary forest, ca. 600 m a.s.l.; 5.VIII.1998; leg. L. Ji, H. Schönmann, K. Schönmann & M. Wang (see JÄCH & JI 1998: Fig. 26).

CWBS loc. 348: **Yünnan Province**, Kunming City Region, plain near River Panlong, northern part of Kunming City, ca. 1800 m a.s.l.; rice fields (partly abandoned), irrigation canals and muddy pools; 2.XI.1999; leg. M.A. Jäch, H. Schönmann, M. Wang & Y. Wei (see JÄCH & JI 2003: Fig. 4).

CWBS loc. 349: **Yünnan Province**, Qüjing Prefecture, Liangwang Shan [King Liang Mountains], ca. 100 km NNE Kunming, few km E Banqiao, ca. 2300 m a.s.l., 25°33'14"N 103°05'52"E; river (tributary of Xiao Jiang (= tributary of Jang Jiang)), ca. 4 - 6 m wide, unshaded, shrubs; 3.XI.1999; leg. M.A. Jäch, H. Schönmann, M. Wang & Y. Wei.

CWBS loc. 350: **Yünnan Province**, Qüjing Prefecture, Liangwang Shan [King Liang Mountains], ca. 2300 m a.s.l., 25°33'14"N 103°05'52"E; stream, ca. 1 - 2 m wide (right hand side tributary of CWBS loc. 349); 3.XI.1999; leg. M.A. Jäch & H. Schönmann (see JÄCH & JI 2003: Fig. 2).

CWBS loc. 369: **Yünnan Province**, Xishuangbanna Dai Autonomous Prefecture, Mengla County, ca. 50 km NW Mengla, ca. 800 m a.s.l.; River Nangong, ca. 5 - 8 m wide, flowing through dense forest; 9.XI.1999; leg. M.A. Jäch & H. Schönmann.

CWBS loc. 377: **Yünnan Province**, Xishuangbanna Dai Autonomous Prefecture, Jinghong City Region, "Original Forest Park", along highway Jinghong - Mengyang, ca. 7 km NE Jinghong, ca. 600 m a.s.l.; river, ca. 5 m wide, flowing through degraded primary forest; 12.XI.1999; leg. M.A. Jäch, H. Schönmann, M. Wang & Y. Wei (see JÄCH & JI 2003: Fig. 10).

CWBS loc. 383: **Yünnan Province**, Kunming City Region, few km SW Chengjiang, ca. 1600 m a.s.l.; several streams, ca. 2 - 3 m wide, flowing into Fuxian Lake, through terraced, cultivated (mainly vegetables) land; 14.XI.1999; leg. M.A. Jäch & Y. Wei.

CWBS loc. 384: **Yünnan Province**, Kunming City Region, ca. 1600 m a.s.l.; several small pools (roadside ditches, rain pools, mud pools, springfed pools) around CWBS loc. 383; 14.XI.1999; leg. M.A. Jäch & Y. Wei.

CWBS loc. 396: **Yünnan Province**, Simao Prefecture, Mojiang County, 35 km SW Mojiang, ca. 1050 m a.s.l.; River Najiu, 5 – 7 m wide, waterfalls and pools with fine sand; 19.XI.1999; leg. H. Schönmann & M. Wang.

CWBS loc. 397: **Yünnan Province**, Simao Prefecture, Mojiang County, 35 km SW Mojiang, ca. 1050 m a.s.l.; small stream (right tributary of River Najiu), ca. 30 – 50 cm wide, steep, sinter, seepages; 19.XI.1999; leg. H. Schönmann & M. Wang.

CWBS loc. 408: **Yünnan Province**, Chuxiong Prefecture, Lufeng City, 15 km W Lufeng, ca. 1500 m a.s.l.; stream, ca. 30 – 50 cm wide, with waterfalls, moss, small pools with leaves, strongly insolated; 27.XI.1999; leg. H. Schönmann & M. Wang.

CWBS loc. 409: **Yünnan Province**, Chuxiong Prefecture, 10 km N Yipinglang, near Ban Jiu, ca. 1700 m a.s.l.; River Da Shui Go, 1 – 2 m wide, with large sandstone boulders, little organic debris; 27.XI.1999; leg. H. Schönmann & M. Wang.

CWBS loc. 455: **Guangdong Province**, Fengkai County, ca. 50 km east of Fengkai, ca. 5 km west of Qixing, Yulao – Mocun road, Heishiding [Black Stone Mountain Top] Nature Reserve, below Heishiding Nature Reserve head office, ca. 150 m a.s.l., 23°27'36"N 111°54'36"E; River Qixing [Seven Stars], ca. 10 – 15 m wide, flowing through deep valley with more or less natural forest, incl. hygropetric rock at shore and mouth of small tributary; 31.X. + 2.XI.2001; leg. M.A. Jäch & A. Komarek.

CWBS loc. 481: **Guangdong Province**, Shixing County, Shixing – Chebaling road, ca. 25 km southeast of Shixing, ca. 2 km northwest of Shuicheng Village, ca. 150 m a.s.l., 24°50'23"N 114°14'03"E; River Shui, ca. 8 - 15 m wide, flowing through valley with secondary vegetation; 8.XI.2001; leg. M.A. Jäch & A. Komarek.

Check list of *Ochthebius* from Mainland China

Although *Ochthebius* (s.str.) *pusillus* STEPHENS was recorded by SHATROVSKIY (1989: 263) from NE China it is not included in the check list below. This species is widely distributed in the Palearctic Realm and although it is not impossible that it occurs in western or northern parts of China, Shatrovskiy's records have not been confirmed and they are probably based on misidentification of *O.* (s.str.) *angusi* JÄCH.

1. *Ochthebius* (*Asiobates*) *flagellifer* **sp.n.** Sichuan
2. *Ochthebius* (*Asiobates*) *furcatus* PU, 1958 Yünnan
3. *Ochthebius* (*Asiobates*) *lurugosus* JÄCH, 1998 Heilongjiang

4.	*Ochthebius* (*Asiobates*) *pui* PERKINS, 1979 (= *O. nitidus* PU, 1958, nec LECONTE, 1850)	Yünnan
5.	*Ochthebius* (*Asiobates*) *unimaculatus* PU, 1958	Gansu, Sichuan, Chongqing, Guizhou, Guangdong
6.	*Ochthebius* (*Asiobates*) *yunnanensis* d'ORCHYMONT, 1925	Yünnan
7.	*Ochthebius* (*Enicocerus*) *exiguus* **sp.n.**	Sichuan
8.	*Ochthebius* (*Enicocerus*) *nigrasperulus* **sp.n.**	Sichuan
9.	*Ochthebius* (*Enicocerus*) *obesus* **sp.n.**	Sichuan
10.	*Ochthebius* (*Enicocerus*) *rotundatus* **sp.n.**	Sichuan
11.	*Ochthebius* (s.str.) *andreasi* **sp.n.**	Sichuan
12.	*Ochthebius* (s.str.) *andreasoides* **sp.n.**	Sichuan
13.	*Ochthebius* (s.str.) *angusi* JÄCH, 1994	Jilin, Liaoning; Russia
14.	*Ochthebius* (s.str.) *argentatus* **sp.n.**	Sichuan
15.	*Ochthebius* (s.str.) *asiobatoides* **sp.n.**	Yünnan
16.	*Ochthebius* (s.str.) *asperatus* **sp.n.**	Sichuan
17.	*Ochthebius* (s.str.) *caligatus* **sp.n.**	Sichuan
18.	*Ochthebius* (s.str.) *castellanus* **sp.n.**	Guangdong
19.	*Ochthebius* (s.str.) *caucasicus* KUWERT, 1887	Tibet; eastern Palearctic
20.	*Ochthebius* (s.str.) *enicoceroides* **sp.n.**	Sichuan
21.	*Ochthebius* (s.str.) *flexus* PU, 1958 (= ? *Ochthebius orientalis* JANSSENS, 1962)	Yünnan
22.	*Ochthebius* (s.str.) *fujianensis* **sp.n.**	Fujian
23.	*Ochthebius* (s.str.) *gonggashanensis* **sp.n.**	Sichuan
24.	*Ochthebius* (s.str.) *guangdongensis* **sp.n.**	Guangdong
25.	*Ochthebius* (s.str.) *hainanensis* **sp.n.**	Hainan
26.	*Ochthebius* (s.str.) *himalayae* JÄCH, 1989	Tibet; Nepal
27.	*Ochthebius* (s.str.) *jilanzhui* **sp.n.**	Sichuan
28.	*Ochthebius* (s.str.) *klapperichi* JÄCH, 1989	Yünnan; Afghanistan, India, Myanmar
29.	*Ochthebius* (s.str.) *lobatus* PU, 1958	Jilin, Liaoning, Chongqing, Sichuan, Yünnan
30.	*Ochthebius* (s.str.) *marinus* (PAYKULL, 1798)	Nei Mongol, Heilongjiang, Liaoning, Beijing, Shandong; Holarctic
31.	*Ochthebius* (s.str.) *octofoveatus* PU, 1958	Yünnan
32.	*Ochthebius* (s.str.) *opacipennis* CHAMPION, 1920 (= *O. exilis* PU, 1958 **syn.n.**)	Yünnan; Afghanistan, India, Nepal, Myanmar
33.	*Ochthebius* (s.str.) *ovatus* JÄCH, 1989	Tibet; Nepal, India
34.	*Ochthebius* (s.str.) *salebrosus* PU, 1958	Yünnan
35.	*Ochthebius* (s.str.) *satoi* NAKANE, 1965	Nei Mongol, Shaanxi, Jilin, Liaoning, Henan, Shandong; Mongolia, Russia, Japan
36.	*Ochthebius* (s.str.) *sichuanensis* **sp.n.**	Sichuan

37. *Ochthebius* (s.str.) *stastnyi* **sp.n.** Yünnan

38. *Ochthebius* (s.str) *verrucosus* PU, 1942 Yünnan

39. *Ochthebius* (s.str.) *wangmiaoi* **sp.n.** Sichuan

40. *Ochthebius* (s.str.) *wuzhishanensis* **sp.n.** Hainan

41. *Ochthebius* (s.str.) *yaanensis* **sp.n.** Sichuan

Key to Chinese subgenera of *Ochthebius*

1 Parameres distinctly divergent from aedeagal main piece (near middle separated by more than diameter of main piece); apex of parameres without setae. ..... ***Asiobates***

- Parameres more or less contiguous with aedeagal main piece, sometimes slightly separated subbasally or distally (near middle never separated by more than diameter of main piece); apex of parameres at least with very short setae 2

2 Parameres entirely or almost entirely fused with main piece, discernable only in apical 0.25 of main piece ..... ***Enicocerus***

- Parameres at most basally fused with main piece ..... ***Ochthebius* s.str.**

Subgenus *Asiobates* THOMSON

The subgenus is characterized mainly by large pronotal ears and by the parameres being divergent distinctly from the aedeagal main piece.

In Mainland China, this subgenus is represented by six species, one of which is described herein.

Key to Chinese species of *Asiobates*

1 Pronotum with distinct admedian foveae. Aedeagus with distinct group of micropores near base of distal lobe 2

- Pronotum without distinct admedian foveae; posterior admedian foveae at most indicated by more densely arranged punctures. Aedeagus without distinct group of micropores near base of distal lobe (Figs. 17 - 20). 3

2 Pronotum more strongly convex in cross section. Elytra more strongly acuminate apically. Aedeagal distal lobe forming long flagellum (Fig. 16). ..... ***flagellifer***

- Pronotum less convex in cross section. Elytra less strongly acuminate apically. Aedeagal distal lobe composed of basal part and short apical flagellum (PU 1958: Fig. 2). ..... ***pui***

3 Dorsal surface unicoloured. Aedeagal distal lobe composed of lateral sclerite, apical tube and hyaline cone (Fig. 19). ..... ***lurugosus***

- At least dorsal surface of elytra with more or less distinct colour pattern (yellowish with dark markings). Aedeagus as in Figs. 17, 18, 20; distal lobe without lateral sclerite. 4

4 The following three species are quite similar and somewhat variable externally; they should therefore always be identified by the shape of the aedeagal distal lobe:

- Distal lobe with two characteristic appendages (Fig. 17). ..... ***furcatus***

- Distal lobe as in Fig. 18. ..... ***unimaculatus***

- Distal lobe as in Fig. 20. ..... ***yunnanensis***

Ochthebius (*Asiobates*) *flagellifer* sp.n.

TYPE LOCALITY: CWBS loc. 221.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 8.6.1996 ca. 14 km N Ya'an City rd. to Shangli, 800m leg. Ji & Wang (CWBS 221)". **Paratypes**: 2 ♂♂ (NMW), same locality data as holotype.

ADDITIONAL MATERIAL EXAMINED:
C H I N A: SICHUAN: 1 ♀ (CPE): "China: Sichuan, Qingcheng Shan 65km NW Chengdu, 103.33 E 30.53 N [103°33'E 30°53'N] 18.V./3.-4.VI.1997, 8 km W Taiping 800-100m, leg. A. Pütz".

DESCRIPTION: 1.55 – 1.75 mm long. Habitus as in Fig. 1. Head black; ocelli, pronotum and elytra brown; elytral sutural interval and palpi dark brown; legs yellowish.

Labrum distinctly wider than long, narrowly beaded, anterior margin shallowly emarginate, sexually dimorphic. Labrum and clypeus sparsely punctate, punctures small, interstices glabrous. Fronto-clypeal suture arcuate and very deeply impressed. Frons with conspicuous impressions: longitudinal median groove with crenulate margins reaching from anterior margin of clypeus to about level of middle of eye, more or less trefoil-shaped ocular grooves, median impression on vertex, and one row of densely set, puncture-like impressions connecting median impression of vertex with posteromesal margins of eyes; interstices between impressions faintly punctate and smooth; ocelli distinct, anterior half wedged between posterior lobes of trefoil-shaped ocular grooves; eyes well-developed and large.

Pronotum transverse, distinctly wider than long, widest near anterior 0.3 – 0.4, with widely explanate ears; lateral margin abruptly arcuately constricted in posterior 0.3. Anterior margin gently convex medially; postocular tooth distinct. Lateral margin of ears subcrenulate, with distinct tooth at posterior corner. Posterior margin rather evenly arched. Hyaline membrane complete. Surface of disc and lateral margin of ears strongly punctate; remainder of ears superficially punctate; interstices glabrous. Disc rather strongly convex in cross section; median groove present, well impressed, not reaching anterior and posterior margin, widest near posterior 0.3; anterior discal foveae small and round, posterior foveae elongately narrow and oblique.

Elytra strongly oval; strongly convex in cross section; apically subacuminate. Disc with five distinct rows of punctures between suture and shoulder; rows straight and regular; strial punctures large, deeply impressed and rather densely arranged; interstices between strial punctures smooth; rows separated by about a puncture diameter; intervals between rows slightly convex, smooth. Lateral gutters very narrow. Pseudepipleura rather wide in anterior half, then gradually tapering, obliterated in posterior 0.25.

Hypomeral antennal grooves deep, confined to anterior 0.5. Mesoventral process large and distinctly beaded. Metaventrite with small gibbosity between mesocoxae; disc glabrous, surrounded by long hairs. Intercoxal segment prominent, distinctly projecting from level of ventrite I; ventrites I - V densely pubescent and matt, ventrite VI very sparsely pubescent and more glabrous.

Secondary sexual characters: Anterior margin of female labrum more distinctly emarginate. Female tergite X with apical fringe of conspicuous bristles. Male mesotarsus: basal four segments (especially third and fourth) enlarged, laterally compressed, terminal segment curved basally (lateral view).

Aedeagus (Fig. 16): Main piece rather short (PL: ca. 330 µm); strongly and almost regularly curved; membrane near base of distal lobe with ca. 12 micropores. Distal lobe forming a long curved transparent flagellum. Phallobase more or less symmetrical. Parameres widely divergent from main piece, distinctly curved, without apical setae; apices weakly sclerotized; right paramere slightly longer than left one.

VARIABILITY: The length of the elytral apex varies quite considerably in the three males from the type locality.

The single female examined deviates slightly in several characters, e.g. bead of mesoventral process more pronounced, covering tip of process entirely.

DISTRIBUTION (Fig. 59): Known only from Sichuan.

ETYMOLOGY: flagellifer (Latin: carrying a flagellum); in reference to the remarkable shape of the aedeagal distal lobe.

Ochthebius (*Asiobates*) *furcatus* Pu, 1958

Ochthebius yunnanensis furcatus PU 1958: 253. - HUA 1989.
Ochthebius furcatus; JÄCH 1990, 1995. - HANSEN 1998.

TYPE LOCALITY: Chengjiang, ca. 75 km SE Kunming City, Chengjiang County, Yüxi Prefecture, Yünnan, southwestern China.

TYPE MATERIAL: **Holotype** ♂ (ZUG). **Paratypes**: 19 exs. (ZUG); 10 exs. (UMS): "Chengkiang, Yunnan. April 26, 1939 Coll. C. L. Pu \ Ochthebius yunnanensis furcatus Pu \ P A R A T Y P E". According to the original description, there should be 221 paratypes (incl. the "allotype") from the type locality.

ADDITIONAL MATERIAL EXAMINED:
C H I N A: YÜNNAN: 24 exs. (NMW): CWBS loc. 348.

DIAGNOSIS: 1.95 – 2.15 mm long. Pronotal disc usually dark brown, remainder of pronotum yellowish; elytra yellowish with faintly defined dark markings, usually with pair of admedian spots at posterior declivity. Pronotum without admedian foveae; pronotal punctation rather dense.

Aedeagus (Fig. 17): Main piece rather short (PL: ca. 340 µm); moderately strongly, rather regularly curved. Distal lobe strongly widened (lateral view), with two curved apical appendages of different length. Phallobase more or less symmetrical. Parameres widely divergent from main piece, distinctly curved, variably wide, without apical setae; right paramere slightly longer than left one.

VARIABILITY: Admedian spots at posterior elytral declivity may be extended anteromediad and confluent forming a Λ-shaped or ∩-shaped macula; rarely, dark colouration more extensive to form a large blurred X-shaped macula. Pronotal punctation varies from dense to very dense.

Curvature of aedeagal main piece at least somewhat variable.

DISTRIBUTION (Fig. 59): China (Yünnan).

Ochthebius (*Asiobates*) *lurugosus* JÄCH, 1998

Ochthebius rugulosus; JÄCH 1990 (partim).
Ochthebius lurugosus JÄCH 1998a: 182. - HANSEN 1998.

TYPE LOCALITY: Small pond on Taiyang Dao [= Sun Island], Harbin, Heilonjiang, northeastern China.

TYPE MATERIAL: **Holotype** ♂ (NHML). **Paratypes**: 13 exs. (NHML, NMW).

DIAGNOSIS: 1.8 – 2.0 mm long. Colouration of dorsal surface dark brown to black, more or less unicoloured. Pronotum without admedian foveae; pronotal punctation rather dense.

Aedeagus (Fig. 19; JÄCH 1990: Fig. 14c, 1998a: Fig. 3): Main piece rather short (PL: ca. 270 - 300 µm); moderately strongly, irregularly curved. Distal lobe: Apical tube large, apically upturned, not bifurcate, and without subapical ventral projection, apically bordered by very

narrow membrane; lateral sclerite not curved ventrad. Phallobase more or less symmetrical. Parameres widely divergent from main piece, without apical setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 59): China (Heilongjiang).

Ochthebius (*Asiobates*) *pui* PERKINS, 1979

Ochthebius nitidus PU 1958: 251 (junior homonym). - HUA 1989. - JÄCH 1990, 1995. - HANSEN 1998.
Ochthebius pui PERKINS 1979: 336 (replacement name). - JÄCH 1990, 1995. - HANSEN 1998.

TYPE LOCALITY: Lufengcun ("Lou-fong-tsouen"), Qüjing Prefecture, Lunan Yi Autonomous County, near the road from Kunming to Kaiyuan City, ca. 75 - 80 km SE of Kunming.

TYPE MATERIAL: **Holotype** ♂ (ZUG): "Lou-fong-tsouen, Yunnan, China Mar. 26, 1940 C. L. Pu \ Ochthebius (Asiobates) nitidus Pu \ Holotype"; aedeagus not found, probably slide-mounted and kept elsewhere. **Paratypes**: 1 ♀ (ZUG): "Lou-fong-tsouen, Yunnan, China Mar. 26, 1940 C. L. Pu \ Ochthebius (Asiobates) nitidus Pu \ Allotype"; 2 ♂♂ (ZUG) with locality labels written in Chinese characters, aedeagi not found. According to the original description, two additional paratypes should be deposited in the ZUG; I could not trace these specimens during my visit in 2001.

DIAGNOSIS: 1.7 – 2.0 mm long. Externally, this species is very similar to *O. flagellifer*, from which it can be distinguished by the pronotum being more strongly convex in cross section and by the elytra being more strongly acuminate apically.

Aedeagus: According to the illustration provided by PU (1958: Fig. 2) the aedeagus of *O. pui* can be distinguished from that of *O. flagellifer* mainly by the shape of the distal lobe, which is composed of a subtriangular basal part and a short flagellum.

DISTRIBUTION (Fig. 59): China (Yünnan).

Ochthebius (*Asiobates*) *unimaculatus* PU, 1958

Ochthebius unimaculatus PU 1958: 252. - HUA 1989. - JÄCH 1990, 1995. - HANSEN 1998.

TYPE LOCALITY: Chongqing, China.

TYPE MATERIAL: **Holotype** ♂ (ZUG). **Paratypes**: 13 exs., incl. "allotype" (ZUG); 8 exs. (UMS): "Chungking,China Mar. 26, 1942 S. C. Chen \ Ochthebius(Homochthebius [!]) unimaculatus Pu Det: C. L. Pu \ P A R A T Y P E".

According to the original description, there should be 74 paratypes (incl. the "allotype") from Chongqing, Guizhou and Guangdong. I do not know where the remaining 53 paratypes are deposited.

ADDITIONAL MATERIAL EXAMINED:
C H I N A: GANSU: 1 ♂ (NMW): CWBS loc. 326; SICHUAN: 1 ex. (NMW): CWBS loc. 218; 10 exs. (NMW): CWBS loc. 219; 16 exs. (NMW): CWBS loc. 221; 3 exs. (NMW): CWBS loc. 224; 9 exs. (NMW): CWBS loc. 225; 1 ex. (NMW): CWBS loc. 234; GUIZHOU: 22 exs. (NMW): CWBS loc. 271; 1 ex. (NMW): CWBS loc. 280; 2 exs. (NMW): CWBS loc. 281.

DIAGNOSIS: 1.65 – 2.10 mm long. Pronotum usually more or less black, sometimes anterior and posterior margin and ears paler brown; elytra yellowish or reddish brown with black markings of various extent (at least with a distinct large X-shaped macula). Pronotum without admedian foveae; pronotal punctation usually quite dense.

Ochthebius unimaculatus can be distinguished from *O. furcatus* and *O. yunnanensis* by the more strongly pronounced elytral maculae.

Aedeagus (Fig. 18): Main piece rather short (PL: ca. 305 - 325 µm); moderately strongly, rather evenly curved. Distal lobe very long, strongly attenuate near middle, with foot-like apex.

Phallobase more or less symmetrical. Parameres widely divergent from main piece, without apical setae; right paramere slightly longer than left one.

VARIABILITY: Elytra sometimes with additional dark sublateral macula, which sometimes is extended to form a longitudinal stripe, which then may be confluent with the lateral tips of the X-shaped macula; in these specimens, elytra may appear almost entirely black.

Curvature of aedeagal main piece at least somewhat variable.

DISTRIBUTION (Fig. 59): China (Gansu, Sichuan, Chongqing, Guizhou, Guangdong). *Ochthebius unimaculatus* is recorded here for the first time from Gansu.

Ochthebius (*Asiobates*) *yunnanensis* d'ORCHYMONT, 1925

Ochthebius yunnanensis d'ORCHYMONT 1925: 263. - d'ORCHYMONT 1928, 1935, 1942. - PU 1958. - JÄCH 1990, 1995. - HANSEN 1998.

TYPE LOCALITY: Yünnan, China.

TYPE MATERIAL: **Holotype** ♂ (ISNB). **Paratypes**: 69 exs. (ISNB); 1 ♂ (SIW): "Yunnan \ Coll. A. d'Orchymont \ COTYPE \ Cotype No.29098 U.S.N.M. \ A.d'Orchym. Det. Ochthebius (Homalochthebius) yunnanensis d'Orchym."; 1 ♀ (SIW): "Yunnan \ COTYPE \ Cotype No.29098 U.S.N.M. \ A.d'Orchym. Det. Ochthebius (Homalochthebius) yunnanensis d'Orchym.".

ADDITIONAL MATERIAL EXAMINED:
CHINA: YÜNNAN: 1 ♀ (NMW): Diaolin Nat. Res., 100 km W Kunming, V.1993, leg. E. Jendek & O. Šauša; 2 ♂♂, 1 ♀ (NMW): 2 km E Shizong, 10.IX.2000, leg. J. Bergsten.

DIAGNOSIS: 1.9 – 2.1 mm long. Habitus as in Fig. 2. Externally, this species agrees very well with *Ochthebius furcatus*. Females can be distinguished from the latter – as far as I can say from the limited material available – by the labrum being less deeply emarginate, by the pronotal punctation being denser, and by the pronotal margin being less widely excised posteriorly; however, all these characters are slightly variable and direct comparison therefore is necessary.

Aedeagus (Fig. 20): Main piece rather short (PL: ca. 320 µm); rather evenly curved. Distal lobe very long, with short subapical appendage. Phallobase more or less symmetrical. Parameres not very widely divergent from main piece, without apical setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 59): China (Yünnan).

Subgenus *Enicocerus* STEPHENS

In Mainland China, this subgenus is represented by four species, all from Sichuan and all described herein. *Ochthebius salebrosus*, which had originally been described in *Enicocerus* is tranferred here to *Ochthebius* s.str.

The taxonomic status and phylogenetic position of *Enicocerus* is still not sufficiently understood.

Key to Chinese species of *Enicocerus*

1 Body length: 2.20 mm. Frons without ocelli ..... ***obesus***
- Body length: 1.50 – 1.95 mm. Frons with ocelli 2
2 Parameres more or less completely fused with main piece (Fig. 24) ..... ***rotundatus***
- Parameres discernible in apical 0.25 of main piece (Figs. 21, 22) 3

3 Body length: 1.50 mm. Admedian pronotal foveae very shallow, more or less completely effaced (Fig. 21)..... ***exiguus***

- Body length: 1.95 mm. Admedian pronotal foveae quite distinctly impressed (Fig. 22). ***nigrasperulus***

Ochthebius (*Enicocerus*) *exiguus* sp.n.

TYPE LOCALITY: CWBS loc. 228.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 11.6.1996 N Ya'an, Baoxing County ca. 5 km SW Baoxing, 900m leg. Ji & Wang (CWBS 228)". **Paratype** ♂ (NMW): same locality data as holotype.

DESCRIPTION (male): 1.5 mm long. Black; body appendages paler brown or yellowish; palpi, knees and tarsi (especially apical part of each segment) dark brown. Upper surface very sparsely and inconspicuously covered by short whitish adpressed setae.

Labrum wider than long (length/width: ca. 2); sparsely superficially punctate, distinctly shagreened (regularly micropunctate); anterior margin distinctly excised medially; anterior lobes slightly thickened and hardly noticeably upturned anteriorly. Clypeus superficially punctate and distinctly shagreened; anterior corners produced into short spines. Fronto-clypeal suture strongly arched, almost V-shaped, not reaching lateral margin. Frons evenly and not very densely punctate on median gibbosity, remainder strongly rugosely punctate; interstices smooth and glabrous on median gibbosity, densely micropunctate (shagreened) on remainder; ocular grooves subcircular, deeply impressed; ocelli well-developed, very close to eyes. Vertex with very shallow median impression. Eyes well-developed. Terminal segment of labial palpi very short and peg-like, ca. 0.33 times as long as penultimate segment.

Pronotum heart-shaped, wider than long, widest near anterior 0.35. Lateral margin more or less gradually constricted from widest point toward base; hardly noticeably emarginate before base. Anterior margin more or less straight. Posterior margin rather evenly arched. Hyaline membrane well-developed; not present on anterior 0.2 of lateral margin. Surface not very densely and superficially punctate; interstices conspicuously, densely and regularly micropunctate, matt. Disc not very strongly convex in cross section; median groove and admedian foveae almost completely effaced. Ears deflexed, slightly gibbose medially.

Elytra elongately oval, strongly convex in cross section; apically subacuminate. Disc with five rows of punctures between suture and shoulder; rows rather straight and regular; strial punctures moderately large, subcircular, superficially impressed and moderately densely arranged; rows separated by approximately one diameter of puncture; intervals between rows and interstices between strial punctures flat and smooth, glabrous. Lateral gutters moderately widely explanate. Pseudepipleura more or less reaching elytral apex.

Hypomeral antennal grooves deep, confined to anterior 0.5. Metaventral disc entirely pubescent. Ventrites I - V pubescent, ventrite VI glabrous.

Aedeagus (Fig. 21): Main piece rather short (PL: ca. 340 µm) and slender, ventrally curved in basal half (lateral view), more or less straight in apical half; membrane near base of distal lobe with ca. five micropores; subapical setae very short and inconspicuous; apex short and straight, without notable DSA; phallobase more or less symmetrical (ventral view). Distal lobe very small, slender, straight. Parameres very short, more or less symmetrical, very close to main piece, inserted ventrally near apical 0.27; apices not widened, with group of moderately long, well-developed bristles.

Female unknown.

DISTRIBUTION (Fig. 60): Known only from the type locality.

ETYMOLOGY: exiguus (Latin: small, tiny); in reference to the small body size.

Ochthebius (*Enicocerus*) *nigrasperulus* sp.n.

TYPE LOCALITY: CWBS loc. 334.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 29.7.1998 Mao Xian Co., Jiuding Shan 8 km NE Mao Xian, ca. 1900m Schönmann, Ji, Wang (CWBS 334)".

DIFFERENTIAL DIAGNOSIS: 1.95 mm long. Apart from the body size, this species is very similar to *O. exiguus*, from which it can be distinguished by the following features. Colouration: lateral pronotal furrow and elytral gutter with metallic (green) lustre if viewed from a certain angle. Head: labrum more transverse (length/width: ca. 2.25), thus anterior lobes more widely rounded, median excision less deep; surface of median gibbosity of frons micropunctate, matt; surface of ocelli micropunctate and matt; terminal segment of labial palpi slightly shorter (ca. 0.28 times as long as penultimate segment). Pronotum (Fig. 13): anterior margin of pronotum with postocular tooth behind lateral margin of eye; lateral margin of pronotum with small tooth near basal 0.36; admedian foveae more distinctly impressed.

Aedeagus (Fig. 22): Main piece (PL: ca. 410 µm) elongate and slender, ventrally evenly curved (lateral view), gently tapering from base to apex; membrane near base of distal lobe with ca. six micropores; subapical setae very short and inconspicuous; apex short and acuminate; DSA very large; phallobase more or less symmetrical (ventral view). Distal lobe small, slender, straight. Parameres very short, more or less symmetrical, very close to main piece, inserted ventrally near apical 0.25; apices not widened, with group of moderately long, well-developed bristles.

The aedeagus differs from that of *O. exiguus* mainly in the larger size, large DSA and by the distal lobe being inserted more closely to the apex.

DISTRIBUTION (Fig. 60): Known only from the type locality.

ETYMOLOGY: niger (Latin: black), and asperulus (somewhat matt); in reference to the black colouration and the distinctly shagreened head and pronotum.

Ochthebius (*Enicocerus*) *obesus* sp.n.

TYPE LOCALITY: CWBS loc. 228.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 11.6.1996 N Ya'an, Baoxing County ca. 5 km SW Baoxing, 900m leg. Ji & Wang (CWBS 228)".

DIFFERENTIAL DIAGNOSIS: Habitus as in Fig. 3. This species differs from *O. nigrasperulus* in the following external features: Size (2.2 mm long). Colouration: dorsal surface with rather distinct metallic lustre. Head: anterior tips of labrum very strongly upturned; anterior margin more widely emarginate; frons densely, almost rugosely punctate; ocelli absent (!); terminal segment of labial palpi slightly longer (ca. 0.37 times as long as penultimate segment). Pronotum: dorsal surface of pronotal disc not as evenly micropunctate, with smooth and glabrous areas, especially on disc; median groove very characteristic: well impressed in anterior 0.1 – 0.3, then almost completely effaced in anterior 0.4 – 0.5, and again deeply impressed (forming moderately large circular impression) in posterior 0.2 – 0.4; admedian foveae completely absent. Elytra more shortly oval, apically more rounded, with distinct transverse depression near anterior 0.3.

Aedeagus (Fig. 23): Main piece (PL: ca. 370 µm) comparatively wide, ventrally evenly and not very strongly curved (lateral view); more or less evenly wide from base to apex, abruptly acuminate apically; membrane near base of distal lobe with ca. six micropores; subapical setae very short and inconspicuous; phallobase slightly asymmetrical (ventral view). Distal lobe moderately large, cylindrical, forming slender tube apically; ventral margin distinctly convex.

Parameres completely fused with main piece subapically, with group of moderately long, well-developed bristles.

The aedeagus of *O. obesus* differs from those of *O. exiguus* and *O. nigrasperulus* in the main piece being broader, in the absence of distinct parameres and in the ventral margin of the distal lobe being convex.

DISCUSSION: Presence of ocelli is undoubtedly a groundplan feature of Ochthebiinae. In *Micragasma paradoxum*, *Ochthebius obesus*, and some species of the *O. punctatus* species group ocelli are completely obsolete.

DISTRIBUTION (Fig. 60): Known only from the type locality.

ETYMOLOGY: obesus (Latin: big, fat); in reference to the comparatively large size and the wide aedeagal main piece.

Ochthebius (*Enicocerus*) *rotundatus* sp.n.

TYPE LOCALITY: CWBS loc. 228.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 11.6.1996 N Ya'an, Baoxing County ca. 5 km SW Baoxing, 900m leg. Ji & Wang (CWBS 228)". **Paratypes** (NMW): 11 exs. (3 ♂♂, 8 ♀♀), same locality data as holotype.

DIFFERENTIAL DIAGNOSIS: This species differs from *O. nigrasperulus* in the following external features: Size (1.75 – 1.90 mm long). Colouration: dorsal surface with more or less distinctly pronounced metallic lustre (however, on elytra rather restricted to punctures and elytral gutter). Head: anterior tips of labrum distinctly upturned; anterior margin more deeply emarginate; frons densely and rugosely punctate, interstices not densely micropunctate; surface of ocelli more glabrous, with very few micropunctures only; terminal segment of labial palpi slightly longer (ca. 0.33 times as long as penultimate segment). Pronotum (Fig. 14): postocular pronotal tooth hardly perceptible; dorsal surface of pronotal disc not evenly micropunctate, largely smooth and glabrous between punctures; median groove and admedian foveae completely effaced, indicated by more dense punctation. Elytra more shortly oval, apically more rounded.

From *O. obesus*, the new species can be distinguished by the following characters: Size (1.75 – 1.90 mm long). Colouration: metallic lustre less distinct. Head: anterior tips of labrum less strongly upturned; anterior margin more deeply emarginate; ocelli well-developed; terminal segment of labial palpi slightly shorter (ca. 0.33 times as long as penultimate segment). Pronotum: postocular pronotal tooth hardly perceptible; median groove completely effaced, admedian foveae (especially posterior foveae) normally indicated by dense punctation. Elytra shortly oval, apically more rounded, without distinct transverse depression near anterior 0.3.

Aedeagus (Fig. 24): Main piece (PL: ca. 350 µm) elongate and slender, ventrally rather evenly and not very strongly curved (lateral view); more or less evenly wide between base and apex, abruptly acuminate apically; membrane near base of distal lobe with ca. six micropores; subapical setae very short and inconspicuous; apex not markedly angulate dorsally; phallobase more or less asymmetrical (ventral view). Distal lobe moderately large, cylindrical, subparallel, gently recurved. Parameres almost completely fused with main piece subapically; left paramere more completely fused with main piece than right paramere (ventral view); each paramere with group of moderately long, well-developed apical bristles.

The aedeagus of *O. rotundatus* differs from *O. exiguus* and *O. nigrasperulus* in the parameres being almost completely fused with the main piece; from *O. obesus* it can be distinguished by the main piece being more slender and by the shape of the distal lobe.

Secondary sexual characters: Anterior margin of male labrum thickened and more or less distinctly upturned. External margin of male mandibles with row of conspicuous stiff bristles. Female tergite X with apical fringe of short and stiff bristles.

VARIABILITY: The anterior margin of the labrum of the holotype is slightly more strongly upturned than in the three male paratypes. The postocular tooth may be indicated by a tiny projection, but it is virtually absent in most specimens. One of the females deviates by the very densely punctate and micropunctate (matt) pronotal disc, and by the more strongly reticulate elytral intervals.

DISTRIBUTION (Fig. 60): Known only from the type locality.

ETYMOLOGY: rotundatus (Latin: rounded); in reference to the widely conjointly rounded elytral apices.

Subgenus *Ochthebius* s.str. LEACH

In Mainland China, the subgenus *Ochthebius* s.str. is represented by four species groups and 31 species.

Key to species groups and subgroups of *Ochthebius* s.str.

1 Epipleural pubescence reaching at least level of posterior 0.25 of metaventrite. First and second tarsal segment of male protarsus enlarged, ventrally densely covered with adhesive setae 2

- Epipleural pubescence reaching at most level of middle of metaventrite. Male tarsus without enlarged segments and without adhesive setae (*metallescens* group) 5

2 Elytral punctation distinctly irregular. ..... ***punctatus* group (in part)**

- Elytral punctation arranged in more or less regular lines. 3

3 Dorsal surface of head, pronotum and elytra black ..... ***punctatus* group (in part)**

- Dorsal surface of head, pronotum and elytra yellowish or brown, never entirely black 4

4 Pronotum more or less abruptly arcuately constricted posteriorly; lateral pronotal furrows distinctly impressed. ..... ***foveolatus* group**

- Pronotum more or less gradually evenly constricted posteriorly; lateral pronotal furrows not distinctly impressed. ..... ***marinus* group**

5 Anterior pronotal margin with more or less distinctly developed postocular tooth; pronotal ear widely explanate. ..... ***strigosus* subgroup**

- Anterior pronotal margin without or at most with tiny postocular tooth; pronotal ear explanate or deflected 6

6 Ocelli micropunctate, matt. Pronotal ears explanate. Female tergite X with apical fringe of strong bristles. ..... ***metallescens* subgroup**

- Ocelli glabrous. Pronotal ears deflected. Female tergite X without apical fringe of strong bristles. ..... ***rivalis* subgroup**

Ochthebius (s.str.) *foveolatus* group

This species group contains brown or yellowish, more or less strongly metallic species. Pronotum more or less abruptly arcuately constricted posteriorly; pronotal ears short, not widely explanate. In the Chinese species and its allies, the epipleural pubescence reaches at least level of posterior 0.25 of metaventrite. Protarsi of male with adhesive setae.

In Mainland China, this species group is represented by a single species.

Ochthebius (s.str.) *satoi* NAKANE, 1965

Ochthebius satoi NAKANE 1963: 63 [nomen nudum]. - NAKANE 1965: 51 [original description]. - SHATROVSKIY 1989. - JÄCH 1991, 1995, 1998b. - HANSEN 1998 – YOSHITOMI 2003.

TYPE LOCALITY: River Shigenobu (Morimatsu), Ehime Prefecture, Shikoku, Japan.

TYPE MATERIAL (not examined): **Holotype** ♂ (CNC). **Paratypes**: 3 exs. (CNC).

DIAGNOSIS: 1.45 – 1.85 mm long. Habitus as in Fig. 4. Colouration brownish; head and pronotum usually with distinct metallic tinge. Anterior margin of labrum deeply emarginate. Anterior and posterior pronotal foveae well defined and well impressed; pronotal ears gibbose posteriorly. Inflexed lateral portion of elytra not reaching elytral apex; pubescence of epipleura reaching level of posterior margin of metaventrite. Middle of metaventrite glabrous.

Aedeagus (Fig. 25): Main piece (PL: ca. 340 µm) elongate and slender, slightly unevenly and not very strongly curved (lateral view); apex subtruncate (ventral view); membrane near base of distal lobe with ca. eight micropores; subapical setae very short and inconspicuous; phallobase more or less asymmetrical (ventral view). Distal lobe with elongate, distinctly sclerotized part and subbasal subglobular hyaline part. Parameres slender, not widened apically; with group of short apical bristles.

DISTRIBUTION (Fig. 60): Mongolia, Russian Far East incl. Sakhalin, China (Nei Mongol, Shaanxi, Jilin, Liaoning, Henan, Shandong, Taiwan), Japan (Hokkaido, Honshu, Shikoku). For details of Chinese localities see JÄCH (1998b).

Ochthebius (s.str.) *marinus* group

This species group contains brown or yellowish species. Pronotum more or less gradually evenly constricted posteriorly; admedian pronotal foveae often medially confluent; lateral pronotal furrows not deeply impressed; pronotum evenly convex in cross-section. Pubescence of epipleura reaching at least level of posterior 0.25 of metaventrite. Protarsi of male with adhesive setae.

In Mainland China, this species group is represented by three species.

Key to Chinese species of the *Ochthebius* (s.str.) *marinus* group

1 Metaventrite with glabrous median spot. Aedeagus as in Fig. 27. Hainan. ..... ***hainanensis***

- Metaventrite without glabrous median spot. Aedeagus as in Figs. 26, 28. North China. 2

2 Anterior margin of labrum truncate. Elytra predominantly yellowish with black long stripes. Aedeagal main piece more evenly curved; distal lobe slender (Fig. 28). ..... ***marinus***

- Anterior margin of labrum excised. Elytra more or less unicoloured brown. Aedeagal main piece unevenly curved; distal lobe wide (Fig. 26). ..... ***angusi***

Ochthebius (s.str.) *angusi* JÄCH, 1994

Ochthebius angusi JÄCH 1994: 205. - JÄCH 1995. - HANSEN 1998.

TYPE LOCALITY: Slowly flowing river, ca. 3 m wide, near Kaimanovka, Primorye, Russian Far East.

TYPE MATERIAL: **Holotype** ♂ (NMW): **Paratypes**: ca. 80 exs. (NMW, MHNG, CASS, CPE, etc.).

DIAGNOSIS: 1.6 – 1.9 mm long. Colouration brown to dark brown, head and pronotum usually with distinct metallic tinge. Anterior margin of labrum slightly excised. Anterior and posterior pronotal foveae medially confluent; pronotal disc rather strongly punctate; pronotal ears flat. Middle of metaventrite not glabrous.

Aedeagus (Fig. 26): Main piece (PL: ca. 320 µm) moderately wide and unevenly curved (lateral and ventral view); membrane near base of distal lobe with ca. eight micropores; subapical setae short; phallobase more or less symmetrical (ventral view). Distal lobe flattened, moderately wide, distinctly acuminate basally and apically. Parameres slender, moderately widened apically; with group of short apical bristles.

DISTRIBUTION (Fig. 60): Russian Far East, China (Jilin, Liaoning). For details of Chinese localities see JÄCH (1994).

Ochthebius (s.str.) *hainanensis* sp.n.

TYPE LOCALITY: CWBS loc. 201 (see JÄCH & JI 1998: Fig. 6).

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Hainan (201) Sanya, 20. 1. 1996 leg. Jäch". **Paratypes** (NMW, CASS, MTD: 2): 19 exs.: same locality data as holotype; 18 exs.: same locality data as holotype, but "leg. Ji & Wang" instead of "leg. Jäch".

DIFFERENTIAL DIAGNOSIS: 1.55 – 1.90 mm long. This species is very closely related to *O. masatakasatoi* JÄCH, described from Thailand. Externally, these two species obviously cannot be distinguished, mainly due to morphological variability.

Head and pronotal disc dark brown to black, usually with metallic tinge; pronotal margin yellowish; elytra yellowhish with more or less distinct, black longitudinal stripes and blurred brown spots. Anterior margin of labrum truncate. Anterior and posterior pronotal foveae not distinctly pronounced, often indicated only by confluent punctures; pronotal disc rather distinctly punctate; pronotal ears flat. Middle of prosternum with long setae. Middle of metaventrite distinctly glabrous.

Aedeagus (Fig. 27): Main piece long (PL: ca. 400 µm) and slender, more or less evenly curved (lateral view); membrane near base of distal lobe with ca. seven micropores; subapical setae very short; phallobase more or less symmetrical (ventral view). Distal lobe elongate and slender, more or less regularly recurved. Parameres contiguous with main piece, apically widened, with moderately long apical setae; right paramere slightly longer than left one.

The aedeagus of *O. masatakasatoi* (see JÄCH 1992a: Fig. 7) can be distinguished from that of *O. hainanensis* mainly by the distal lobe being more strongly curved. The aedeagus of *O. delhiensis* JÄCH (see JÄCH 1992a: Fig. 6) differs in the main piece and distal lobe each being longer and less distinctly curved, and especially in the position of the parameral insertion.

VARIABILITY: Externally, the new species is as variable as *O. masatakasatoi*. Pronotum with faint or distinct metallic lustre, which varies from greenish to cupreous; black longitudinal stripes of elytra sometimes obscured by brown patches; pronotal disc moderately to very densely punctate, more or less distinctly vaulted. Posterior discal foveae of pronotum confluent or isolated.

DISTRIBUTION (Fig. 60): Known only from the type locality.

ETYMOLOGY: Named in reference to the provenance of the type material.

Ochthebius (s.str.) *marinus* (PAYKULL, 1798)

Elophorus marinus PAYKULL 1798: 245.
Ochthebius marinus; JÄCH 1992a, 1995. - HANSEN 1998.

TYPE LOCALITY: Bohuslän, Sweden.

TYPE MATERIAL: **Syntypes** (NRS): 2 exs. (acc. to e-mail of B. Gustafsson, 20.I.2003), not examined.

CHINESE MATERIAL EXAMINED:
C H I N A: HEILONGJIANG: Harbin, 5.V.1966, leg. P. Hammond (NHML, NMW); NEI MONGOL: 4 exs. (NMW): CWBS loc. 329; LIAONING: 18 exs. (NMW): CWBS loc. 99; 1 ex. (NMW): CWBS loc. 124; 5 exs. (NMW): CWBS loc. 148; 1 ex. (NMW): CWBS loc. 153; BEIJING: 11 exs. (NMW): CWBS loc. 9; SHANDONG: 1 ♀ (NMW): CWBS loc. 135.

DIAGNOSIS: 1.5 – 1.9 mm long. Habitus as in Fig. 5. Head and pronotum dark brown to black, with distinct metallic tinge; elytra yellowish with more or less distinct, black longitudinal stripes and blurred brown spots. Anterior margin of labrum truncate. Anterior and posterior pronotal foveae medially confluent; pronotal ears flat; pronotal disc not very strongly punctate. Metaventrite entirely pubescent.

Aedeagus (Fig. 28): Main piece long (PL: ca. 360 µm) and slender, curved basally and then more or less straight in lateral view, very slightly curved in ventral view; membrane near base of distal lobe with ca. 10 micropores; subapical setae very short; phallobase more or less symmetrical (ventral view). Distal lobe elongate and slender, distinctly recurved. Parameres long and slender, apically widened, with moderately long apical setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 60): Holarctic; China (Nei Mongol, Heilongjiang, Liaoning, Beijing, Shandong). First record for Nei Mongol and Shandong.

Ochthebius (s.str.) *metallescens* group

This species group contains brown or black, often distinctly metallic species. Pronotal disc usually with anterior and posterior accessory foveae. Pubescence of epipleura reaching at most level of middle of metaventrite. Protarsi of male without adhesive setae.

In Mainland China, this species group is represented by three subgroups (see above for key).

Ochthebius (s.str.) *metallescens* subgroup

In Mainland China, this subgroup is represented by a single species.

Ochthebius (s.str.) *himalayae* JÄCH, 1989

Ochthebius himalayae JÄCH 1989c: 359. - JÄCH 1995. - JÄCH & SHARMA 1998. - HANSEN 1998.

TYPE LOCALITY: River Sun Kosi (or Buth Kosi), forming border between Nepal and Tibet, ca. 1600 m a.s.l., Tatopani, near Kodari.

TYPE MATERIAL: **Holotype** ♂ (NMW): **Paratype**: 1 ♂ (NMW).

ADDITIONAL MATERIAL EXAMINED:
N E P A L: MID WESTERN NEPAL: 2 exs. (NMW, NME): Karnali, River Jumla Tila, 2300 m a.s.l., 29.IV.1995, leg. A. Weigel.

DIAGNOSIS: 1.8 – 2.0 mm long. Habitus as in Fig. 6. Dorsal surface black, with distinct metallic tinge. Anterior margin of labrum deeply emarginate. Dorsal surface of head and pronotum densely micropunctate; ocelli micropunctate, matt. Pronotal ears explanate.

Aedeagus (Fig. 29): Main piece long (PL: ca. 360 µm) and slender, almost evenly curved (lateral view); membrane near base of distal lobe with ca. 10 micropores. Distal lobe elongate and slender, distinctly recurved. Parameres long and slender, apically widened, with moderately long apical setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 61): Nepal, China (Tibet).

Ochthebius (s.str.) *rivalis* subgroup

In Mainland China, this subgroup is represented by two described species, which geographically are widely separated. Pronotal ears deflexed; anterior pronotal margin without distinct postocular tooth. The absence of the apical fringe of strong bristles in the female tergite X is a remarkable feature of the *O. rivalis* subgroup. Both known Chinese species dwell in gravel and sand of river margins.

Ochthebius (s.str.) *octofoveatus* PU, 1958

Ochthebius octofoveatus PU 1958: 257. - HUA 1989. - JÄCH 1991, 1995. - HANSEN 1998.

TYPE LOCALITY: Lufengcun ("Lou-fong-tsouen"), Qüjing Prefecture, Lunan Yi Autonomous County, near the road from Kunming to Kaiyuan City, ca. 75 - 80 km SE of Kunming.

TYPE MATERIAL: **Holotype** ♀ (ZUG): "Lou-fong-tsouen, Yunnan, China Mar. 26, 1940 C. L. Pu \ Ochthebius (Hymenodes) octofoveatus Pu \ Holotype \ [not clearly legible, with at least one Chinese character]".

ADDITIONAL MATERIAL EXAMINED:
CHINA: YÜNNAN: 1 ♂, 1 ♀ (NMW): Diaolin Nat. Res., 100 km W Kunming, V.1993, leg. E. Jendek & O. Šauša; 1 ♀ (NMW): CWBS loc. 377.

SPECIES CONCEPT: The species concept provided here is based on the two specimens from Diaolin.

DIAGNOSIS: 1.65 – 1.75 mm long. Brown to dark brown; head and pronotum with distinct metallic (greenish, cupreous) lustre. Anterior margin of labrum distinctly emarginate. Dorsal surface of pronotum distinctly micropunctate, matt; pronotal punctation superficial.

Aedeagus (Fig. 30): Main piece long (PL: ca. 335 µm) and slender, almost evenly curved (lateral view); membrane near base of distal lobe with ca. 10 micropores. Distal lobe elongate, apically acuminate, dorsal margin distinctly bisinuate. Parameres long and slender, apically distinctly widened, with moderately long apical setae; right paramere slightly longer than left one.

DISCUSSION: The two specimens from Diaolin are identified tentatively as *O. octofoveatus*. It should, however, be kept in mind, that the species concept is still ambiguous because of the following reasons: the holotype is a female, I was not able to collect this species at the type locality, and in Yünnan there seem to occur several closely related species. The specimens from Diaolin and CWBS loc. 377 very probably represent two different species. The holotype of *O. octofoveatus* (1.75 mm long) is very teneral; pronotal impressions deeply impressed (therefore the longitudinal median groove appears medially interrupted).

This species had been placed in the *Ochthebius foveolatus* species group by JÄCH (1991). However, it is transferred to the *O. metallescens* species group on account of pronotal and epipleural characters.

DISTRIBUTION (Fig. 61): China (Yünnan).

Ochthebius (s.str.) *wuzhishanensis* sp.n.

TYPE LOCALITY: CWBS loc. 192 (see JÄCH & JI 1998: Fig. 4).

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Hainan (192) Maoyang, 100m Changhua river 17.1.1996, leg. Jäch". **Paratypes** (MTD: 6, NMW): 31 exs., same locality data as holotype; 84 exs., same locality data as holotype, but "Ji & Wang" instead of "leg. Jäch"; 1 ex.: "CHINA: Hainan (197) 3km E Maoyang, 200m Wuzhi Shan riv. 19.1.1996, Ji & Wang"; 17 exs.: "CHINA: Hainan (198) 3km NE Maoyang, 100m Wuzhi Shan riv. 19.1.1996, Ji & Wang".

DESCRIPTION: 1.5 – 1.7 mm long. Habitus as in Fig. 7. Dark brown to black; head and pronotum with distinct metallic (greenish, cupreous) lustre; legs and maxillary palpi brown, tarsi and apical segment of maxillary palpi usually darkened. Upper surface covered by moderately long, whitish adpressed setae.

Labrum slightly deflexed; wider than long; moderately densely punctate, interstices glabrous; anterior margin rimmed, sexually dimorphic, distinctly excised (ca. in anterior 0.4). Clypeus very sparsely punctate and glabrous medially, more densely punctate, microreticulate and matt laterally. Fronto-clypeal suture distinctly arched, deeply impressed medially. Frons very sparsely punctate and glabrous medially, more densely punctate, microreticulate and matt laterally; ocular grooves deeply impressed, subcircular, outlines posteriorly interrupted by ocelli. Ocelli well-developed, moderately large, often with few micropunctures; very close to eyes. Vertex with distinct median impression. Eyes well-developed, very large. Terminal segment of labial palpi comparatively long, peg-like, ca. 0.6 - 0.7 times as long as penultimate segment.

Pronotum distinctly heart-shaped, wider than long, widest near anterior 0.3. Lateral margin arcuately emarginate in posterior 0.6; very small and indistinct denticle sometimes present near posterior 0.3. Anterior margin more or less straight medially, gently rounded laterally; anterior angles rounded. Lateral margin of ears subcrenulate. Posterior margin almost evenly arched. Hyaline membrane well-developed, produced behind mesal margin of eyes; lacking on lateral margin of ears. Surface of disc faintly punctate, punctures small; interstices usually much wider than a puncture diameter, glabrous or superficially shagreened. Ears more densely punctate and more densely shagreened, matt. Disc moderately strongly convex in cross section; median groove present, almost reaching anterior and posterior margin, slightly dilated in anterior and posterior 0.3 (anterior dilatation larger than posterior dilatation); anterior discal foveae small and subcircular, posterior foveae varying from small and subcircular to moderately large, more oval and oblique; very shallow posterior accessory fovea sometimes discernable. Sublateral groove wide, well impressed, not reaching anterior margin. Ears convex, deflexed.

Elytra elongately oval, strongly convex in cross section; apically subacuminate. Disc with five rows of punctures between suture and shoulder and with short accessory stria with ca. five small punctures; rows rather straight and regular; strial punctures large, subcircular to subquadrate, deeply impressed and densely arranged; interstices between strial punctures very narrow; rows separated by less than diameter of puncture; intervals between rows slightly convex, glabrous. Lateral gutter moderately widely explanate, vaguely sexually dimorphic. Pseudepipleura moderately wide in anterior half, gradually tapering, almost reaching elytral apex, but very narrow subapically.

Hypomeral antennal grooves deep, confined to anterior 0.5. Anterior margin of prosternum with long setae medially. Metaventral disc entirely pubescent. Ventrites I - V pubescent, ventrite VI glabrous.

Aedeagus (Fig. 31): Main piece (PL: ca. 310 µm) elongate and slender, more or less evenly curved ventrad (lateral view); membrane near base of distal lobe with ca. eight micropores; subapical setae very short and inconspicuous; apex acute and acuminate (lateral view); phallobase distinctly asymmetrical (ventral view). Distal lobe elongate and slender, slightly

sinuous (lateral view). Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.35; apices slightly widened, with group of comparatively long, apical bristles; right paramere slightly longer than left one.

Secondary sexual characters: Anterior margin of male labrum thickened and more distinctly upturned. Lateral elytral gutter statistically more widely explanate. Female tergite X without apical fringe of strong bristles.

VARIABILITY: The following morphological features were found to be at least slightly variable: depth of excision of labrum; deflexion of labrum; shape of anterior corners of clypeus; proportional lengths of terminal and penultimate segment of labial palpi, sometimes differing even between left and right body side; presence of tiny postocular tooth; surface structure of pronotal disc.

DIFFERENTIAL DIAGNOSIS: *Ochthebius wuzhishanensis* can be distinguished from *O. octofoveatus* (according to actual species concept) by the more deeply impressed punctures of pronotum and elytra. The aedeagus of *O. wuzhishanensis* differs from that of *O. octofoveatus* mainly in the size (PL) and in the shape of the distal lobe.

DISTRIBUTION (Fig. 61): Known only from Hainan.

ETYMOLOGY: Named in reference to the provenance of the type material.

Ochthebius (s.str.) *strigosus* subgroup

This subgroup is characterized by the shape of the (sometimes *Asiobates*-like) pronotum (disc convex, postocular tooth present, pronotal ears long and more or less widely explanate), by the long pseudepipleura and very short epipleural pubescence, by the short terminal segment of labial palp, shape of pedicel, presence of strong apical bristles on female tergite X, etc.

Due to external similarities, some of the species occasionally have been identified as *Asiobates* or *Enicocerus* in the past.

Obviously, the species of this group share a number of characters with *Enicocerus* s.l. (e.g., pseudepipleura long and wide; anterior margin of male labrum thickened in *O. enicoceroides* and *O. caligatus*). They are distinguished from the Chinese species of *Enicocerus* by the explanate pronotal ears and the length ratio of penultimate and ultimate maxillary palp segments.

This subgroup previously was not recorded from Mainland China, although one of its members, *O. salebrosus*, had been described in 1958. However, *O. salebrosus* had hitherto been placed under *Enicocerus*; it is transferred to the *O. strigosus* subgroup.

This subgroup comprises only Chinese and Indian species. The Himalayan *O. kosiensis* CHAMPION, for which a separate species group was established by JÄCH (1997) undoubtedly belongs to the *O. strigosus* subgroup as well.

In fact, the *O. strigosus* subgroup is the most speciose species group in Mainland China. The 15 Chinese species can be grouped tentatively in four species complexes: *O. andreasi* complex (*O. andreasi*, *O. caligatus*, *O. enicoceroides*, *O. stastnyi*, *O. wangmiaoi*), *O. asiobatoides* complex (*O. asiobatoides*), *O. kosiensis* complex (*O. asperatus*), *O. salebrosus* complex (*O. andreasoides*, *O. castellanus*, *O. fujianensis*, *O. guangdongensis*, *O. jilanzhui*, *O. salebrosus*, *O. sichuanensis*, *O. yaanensis*).

The species of the *O. andreasi* complex are 1.65 - 1.90 mm long, slender, with regular elytral striae and an entirely pubescent metaventrite. The single species of the *O. asiobatoides* complex is 1.60 - 1.80 mm long and characterized by its peculiar pronotum, the number of elytral striae

and the glabrous spot of the metaventrite. The single Chinese species of the *O. kosiensis* complex is 1.60 mm long and characterized by the lateral margins of the frons (anterior to eyes) being thickened and subparallel-sided, by the posterior admedian pronotal foveae being thin and slit-like, and by the glabrous spot of the metaventrite, which is bordered by ridges. The remaining species (*O. salebrosus* complex) are 1.30 - 1.60 mm long and characterized by similar general appearance (size, colouration, body shape, etc.) and the entirely pubescent metaventrite.

Key to Chinese species of the *Ochthebius* (s.str.) *strigosus* subgroup

1 Anterior margin of pronotum very deeply emarginate between postocular tooth and anterolateral corner. Elytral disc with seven rows of punctures between suture and shoulder... ..... ***asiobatoides***

\- Anterior margin of pronotum not very deeply emarginate between postocular tooth and anterolateral corner. Elytral disc with five or six rows of punctures between suture and shoulder..... 2

2 Lateral margins of frons (anterior to eyes) subparallel-sided. Posterior admedian pronotal foveae thin and slit-like..... ***asperatus***

\- Lateral margins of frons (anterior to eyes) convergent anteriad. Posterior admedian pronotal foveae wider..... 3

3 Aedeagal distal lobe distinctly recurved or angulate (geniculate) in lateral or ventral view..... 4

\- Aedeagal distal lobe elongate and straight or widened and flattened, but never distinctly recurved or angulate (geniculate) in lateral or ventral view..... 9

4 Dorsal surface of head, prothorax and elytra distinctly metallic (greenish or cupreous). Aedeagal main piece long (PL: more than 400 µm)..... 5

\- Dorsal surface of head, prothorax and elytra more or less black, at most with very faint metallic reflections. PL of aedeagal main piece less than 400 µm..... 6

5 Body length: 1.85 mm. Aedeagal distal lobe distinctly geniculate; distal branch about as long as basal branch (ventral view) (Fig. 34)..... ***caligatus***

\- Body length: 1.65 – 1.75 mm. Aedeagal distal lobe strongly curved apically; distal branch distinctly shorter than basal branch (ventral view) (Fig. 38)..... ***enicoceroides***

6 Body length: 1.9 mm. Elytral punctures widely spaced; intervals wide and glabrous; interstices without distinct tubercles..... ***stastnyi***

\- Body length: 1.4 – 1.6 mm. Elytral punctures very densely arranged; interstices with distinct tubercles..... 7

7 Aedeagal distal lobe flattened and angulate in ventral view, with a larger basal part and a smaller distal part (Fig. 39)..... ***jilanzhui***

\- Aedeagal distal lobe slender, evenly or angulately recurved (Figs. 40, 41)..... 8

8 Dorsal margin of aedeagal main piece evenly curved (lateral view); distal lobe angulately recurved (Fig. 40)..... ***fujianensis***

\- Dorsal margin of aedeagal main piece slightly sinuate in apical half (lateral view); distal lobe more or less evenly recurved (Fig. 41)..... ***guangdongensis***

9 Aedeagal main piece long (PL: 370 – 410 µm)..... 10

\- Aedeagal main piece short (PL: 280 – 330 µm)..... 12

10 Aedeagal main piece almost evenly curved medially (lateral view); ventral margin of distal lobe strongly convex..... 11

\- Aedeagal main piece more or less straight medially (lateral view); ventral margin of distal lobe slightly concave (Fig. 46)..... ***wangmiaoi***

11 Body length: 1.8 mm. Aedeagal main piece longer (PL: ca. 410 µm); DSA distinctly larger; distal lobe wider (length/width: ca. 1.4) (Fig. 32)..... ***andreasi***

- Body length: 1.6 mm. Aedeagal main piece shorter (PL: ca. 370 µm); DSA distinctly smaller; distal lobe more elongate (length/width: ca. 1.7) (Fig. 33)..... ***andreasoides***

12 Aedeagal main piece longer (PL: ca. 330 µm); distal lobe very wide, ventral margin very strongly convex (Fig. 37). Guangdong. ..... ***castellanus***

- Aedeagal main piece shorter (PL: ca. 280 - 300 µm); distal lobe moderately wide, ventral margin less convex or straight (Figs. 42 – 44, 47). Sichuan, Yünnan..... 13

13 Aedeagal distal lobe wide, ventral margin distinctly convex (Figs. 42, 43). Yünnan. ..... ***salebrosus***

- Aedeagal distal lobe more slender, ventral margin not distinctly convex (Figs. 44, 47). Sichuan..... 14

14 Dorsal margin of aedeagal main piece slightly concave in apical half; ventral margin of distal lobe straight or slightly concave (Fig. 44).. ..... ***sichuanensis***

- Dorsal margin of aedeagal main piece straight or convex in apical half; ventral margin of distal lobe slightly convex (Fig. 47)..... ***yaanensis***

Ochthebius (s.str.) *andreasi* sp.n.

TYPE LOCALITY: Jiajin Shan, below Labahe, 54 km west of Ya'an, 30°02'90"N 102°26'71"E, 1500 m a.s.l., Tianquan County, Ya'an Prefecture, western Sichuan.

TYPE MATERIAL: **Holotype** ♂ (NMW): "CHINA W-Sichuan Ya'an Pref. Tianquan Co. Jiajin Shan, below Labahe \ N.R.St., 54km W Ya'an 30.02.90N, 102.26,71E [30°02'90"N 102°26'71"E] 1500m,12.VII.1999, leg.Pütz".

DESCRIPTION (male): 1.8 mm long. Habitus as in Fig. 8. Black, head, pronotum and elytra with distinct metallic (greenish, cupreous) lustre; body appendages (reddish) brown; palpi, knees and apices of tarsomeres darker than remainder of legs. Upper surface with short whitish semierect or adpressed setae.

Labrum slightly deflexed; distinctly wider than long; superficially punctate; anterior margin slightly excised (ca. 0.25 of length), hardly perceptibly upturned. Clypeus densely punctate. Fronto-clypeal suture arcuate. Frons very densely and rugosely punctate; ocular grooves deeply impressed; ocelli and eyes well-developed; ocelli very close to eyes. Vertex with a shallow median impression. Terminal segment of labial palpi short and peg-like, ca. 0.4 times as long as penultimate segment.

Pronotum distinctly heart-shaped, wider than long, widest near anterior 0.3, with widely explanate ears; lateral margin abruptly arcuately constricted in posterior half. Anterior margin gently emarginate medially and laterally; postocular tooth small. Lateral margin of ears subcrenulate. Posterior margin rather evenly arched. Hyaline membrane narrow, confined to anterior and posterior margin and posterolateral emargination. Surface of disc and lateral margin of ears very densely punctate; remainder of ears more or less glabrous. Disc strongly convex in cross section; median groove present, well impressed, not reaching anterior and posterior margin; anterior discal foveae more or less round, posterior foveae more oval and oblique, larger than anterior foveae; accessory foveae on lateral declivity of disc behind anterior margin (opening into lateral depression) and near posterior corners.

Elytra elongate; strongly convex in cross section; apically subacuminate. Disc with five rows of punctures between suture and shoulder; rows straight and regular; strial punctures moderately large, deeply impressed and densely arranged; rows separated by about a puncture diameter; intervals between rows flat and smooth; interstices between strial punctures only inconspicuous-

ly (mesal striae) or not at all (lateral striae) tuberculate. Lateral gutters moderately widely explanate. Pseudepipleura more or less reaching elytral apex.

Hypomeral antennal grooves deep, confined to anterior 0.5. Metaventral disc entirely pubescent. Ventrites I - V densely pubescent and matt, ventrite VI very sparsely pubescent and more glabrous.

Aedeagus (Fig. 32): Main piece (PL: ca. 410 µm) elongate and slender, ventrally curved (lateral view); membrane near base of distal lobe with ca. 12 micropores; subapical setae very short and inconspicuous; apex acute; DSA very large; phallobase distinctly asymmetrical (ventral view). Distal lobe flattened, ventral margin strongly curved (convex), dorsal margin more or less straight; with narrow dorsoapical hyaline part. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.2; apices hardly noticeably widened, with group of short setae; right paramere slightly longer than left one.

Female unknown.

DIFFERENTIAL DIAGNOSIS: This species is characterized by large size, metallic tinge, and regular elytral striae. Externally, it can hardly be distinguished from *O. wangmiaoi* (see below). The aedeagus is characterized by its size and the shape of the distal lobe.

DISTRIBUTION (Fig. 61): Known only from the type locality.

ETYMOLOGY: Named for Andreas Pütz (Eisenhüttenstadt).

Ochthebius (s.str.) *andreasoides* sp.n.

TYPE LOCALITY: CWBS loc. 221.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 8.6.1996 ca. 14 km N Ya'an City rd. to Shangli, 800m leg. Ji & Wang (CWBS 221)".

DIFFERENTIAL DIAGNOSIS: The holotype of *O. andreasoides* can be distinguished from the holotype of *O. andreasi* by the following characters: 1.6 mm long. Metallic lustre of head, pronotum and elytra less distinctly pronounced. Pronotal disc slightly wider; discal foveae more deeply impressed; pronotal ears slightly deflexed. Elytra less distinctly produced apically; more strongly punctate; strial punctures larger; intervals narrower than a puncture diameter.

Aedeagus (Fig. 33): Main piece shorter (PL: ca. 370 µm) than that of *O. andreasi*; DSA distinctly smaller; distal lobe more elongate (length/width: ca. 1.4 in *O. andreasi*, ca. 1.7 in *O. andreasoides*).

DISTRIBUTION (Fig. 61): Known only from the type locality.

ETYMOLOGY: Named in reference to the external and aedeagal similarity with *O. andreasi*.

Ochthebius (s.str.) *asiobatoides* sp.n.

TYPE LOCALITY: Algae-covered hygropetric rock at entry to cave, east of Zhongdian, 27°47'N 100°09'E, 3600 m a.s.l., Yünnan.

TYPE MATERIAL: **Holotype** ♂ (NMW): "CHINA – Yünnan Prov. E Zhongdian 14.10. 1999 J. Šťastný leg. \ 100°09´E 27°47´N wet wall, algae entry to cave ca 3600 m a.s.l.". **Paratypes** (CBB: 2, NMW: 5): 7 exs., same locality data as holotype.

DESCRIPTION: 1.6 - 1.8 mm long. Habitus as in Fig. 9. Head and pronotal disc more or less black, pronotal ears and elytra dark brown to almost black; body appendages (reddish) brown; apices of femora and apices of apical tarsomeres very slightly darker than remainder of legs. Upper surface with short whitish semierect or adpressed setae.

Labrum distinctly deflexed; distinctly wider than long; densely shagreened; anterior margin very slightly excised (ca. 0.15 of length); slightly sexually dimorphic. Clypeus densely punctate, interstices shagreened, matt; very wide, parallel-sided. Fronto-clypeal suture arcuate, deeply impressed, not reaching lateral margin. Frons very densely and rugosely punctate, interstices shagreened, matt; ocular grooves deeply impressed. Ocelli very prominent and glabrous. Eyes well-developed. Vertex with pair of short, admedian longitudinal carinae; area between carinae distinctly impressed. Terminal segment of labial palpi short and peg-like, ca. 0.4 times as long as penultimate segment.

Pronotum distinctly wider than long (length/width = 0.6), widest near anterior 0.3, with conspicuously widely explanate ears; lateral margin abruptly arcuately constricted (excised) in posterior 0.4. Anterior margin trisinuate between postocular teeth, very deeply emarginate between postocular tooth and lateral margin; postocular tooth very acute. Lateral margin of ears gently convex, subcrenulate. Posterior margin very gently trisinuate. Hyaline membrane confined to anterior and posterior margin and posterolateral emargination. Surface of pronotum very densely, rugosely punctate and matt. Disc strongly convex in cross section; median groove present, well impressed, effaced before anterior margin, widened in anterior 0.2 – 0.6; anterior discal foveae rounded and deeply impressed, posterior foveae larger than anterior foveae, distinctly oval and oblique; accessory foveae near posterior corners.

Elytra elongate; strongly convex in cross section; apically subacuminate. Disc with seven rows of punctures between suture and shoulder; rows straight and regular; strial punctures rather small, deeply impressed and densely arranged; rows separated by slightly more than a puncture diameter; intervals between rows flat and smooth; interstices between strial punctures inconspicuously tuberculate, with short recumbent whitish seta. Lateral gutter narrow. Pseudepipleura almost reaching elytral apex.

Hypomeral antennal grooves deep, terminating before lateral excision. Metaventral disc with round glabrous area in posterior half. Ventrites I - V densely pubescent and matt, ventrite VI very sparsely pubescent and more glabrous.

Aedeagus (Fig. 36): Main piece (PL: ca. 280 µm) slender, slightly curved (lateral view); membrane near base of distal lobe with ca. six micropores; apex acute; DSA large; phallobase distinctly asymmetrical (ventral view). Distal lobe thin, elongate, parallel-sided, with small apical hyaline part. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.25; apices widened, with group of moderately long setae; right paramere slightly longer than left one.

Secondary sexual characters: Anterior margin of male labrum hardly perceptibly upturned. Ventrite VI more glabrous in male. Female tergite X with apical fringe of conspicuous bristles.

DIFFERENTIAL DIAGNOSIS: A most distinctive species, characterized by the peculiar shape of the pronotum and the number of elytral striae.

DISTRIBUTION (Fig. 61): Known only from the type locality.

ETYMOLOGY: Named in reference to the *Asiobates*-like habitus.

Ochthebius (s.str.) *asperatus* sp.n.

TYPE LOCALITY: CWBS loc. 237.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 14.6.1996 ca. 10 km NW Ya'an, 700m 3 km N Feixian leg. Ji & Wang (CWBS 237)".

DESCRIPTION (male): 1.6 mm long. Dark brown, almost black; body appendages (reddish) brown; knees and apices of tarsomeres hardly noticeably darker than remainder of legs. Upper surface with short whitish semierect or adpressed setae.

Labrum distinctly deflexed; distinctly wider than long; surface rugose, subtuberculate, rather densely covered with very short whitish setae; anterior margin excised (ca. 0.3 of length), hardly perceptibly upturned. Clypeus more or less glabrous, surface slightly uneven. Fronto-clypeal suture strongly arcuate, deeply impressed medially, more or less effaced laterally. Frons distinctly wider than clypeus, thus head abruptly narrowed anterior to frons; surface densely and rugosely punctate medially and around eyes; ocular grooves short, very deeply impressed; area between postocular grooves gibbose. Ocelli very prominent and glabrous. Eyes well-developed. Vertex with five short longitudinal carinae situated posterior of ocelli, posterior of postocular grooves and along middle. Terminal segment of labial palpi short and peg-like, ca. 0.4 times as long as penultimate segment.

Pronotum (Fig. 15) distinctly heart-shaped, wider than long, widest near anterior 0.3, with widely explanate ears; lateral margin abruptly arcuately constricted in posterior half. Anterior margin gently trisinuate between postocular teeth, moderately deeply emarginate between postocular teeth and lateral margin; postocular tooth distinct. Lateral margin of ears subcrenulate. Posterior margin very gently trisinuate. Hyaline membrane narrow, confined to anterior and posterior margin and posterolateral emargination. Surface of disc rugose; ears more or less smooth and glabrous, laterally tuberculate. Disc strongly convex in cross section; median groove narrow, not reaching anterior and posterior margin, almost effaced near basal 0.3; anterior and posterior discal foveae very narrow, oblique; posterior foveae slightly larger than anterior foveae, slit-like; anterior accessory fovea confluent with lateral furrow, posterior accessory fovea very narrow and strongly oblique.

Elytra oval; strongly convex in cross section. Disc with five rows of punctures between suture and shoulder; rows straight and regular; strial punctures moderately large, strongly transverse, very deeply impressed and densely arranged; rows separated by less than puncture width; intervals between rows very slightly convex and glabrous; interstices between strial punctures conspicuously tuberculate. Lateral gutters narrowly explanate. Pseudepipleura more or less reaching elytral apex.

Hypomeral antennal grooves deep, confined to anterior 0.5. Metaventral disc glabrous; glabrous area posterolaterally bordered by shallow ridge. Ventrites I - V densely pubescent and matt, ventrite VI more or less glabrous.

Aedeagus (Fig. 35): Main piece long (PL: ca. 290 µm), elongate and slender, rather straight in apical half (lateral view); membrane near base of distal lobe with ca. six micropores; subapical setae very short and inconspicuous; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe flat, widening towards apex (lateral view), posteroapically strongly produced into conspicuous dorsad projection. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.2; apices gradually widened, with group of moderately long setae; right paramere slightly longer than left one.

Female unknown.

DIFFERENTIAL DIAGNOSIS: This species can be distinguished easily by the lateral margins of the frons (anterior to eyes) being thickened and subparallel-sided, by the surface structure of the pronotum, by the posterior admedian pronotal foveae being thin and slit-like, and by the presence of metaventral ridges. The aedeagus differs from that of *O. kosiensis* (see JÄCH 1997: Fig. 3) in the conspicuous shape of the distal lobe.

DISCUSSION: *Ochthebius asperatus* shares its most significant distinguishing characters (see above) with *O. kosiensis*, described from India.

DISTRIBUTION (Fig. 61): Known only from the type locality.

ETYMOLOGY: asperatus (Latin: rough, matt); in reference to the rugosely punctate dorsal surface.

Ochthebius (s.str.) *caligatus* sp.n.

TYPE LOCALITY: CWBS loc. 221.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 8.6.1996 ca. 14 km N Ya'an City rd. to Shangli, 800m leg. Ji & Wang (CWBS 221)".

DIFFERENTIAL DIAGNOSIS: 1.85 mm long. Externally, this specimen is very similar to *O. andreasi* and *O. andreasoides*. Metallic lustre and shape of elytra more or less as in *O. andreasi*, but shape and punctation of pronotum and punctation of elytra as in *O. andreasoides*. Anterior margin of labrum thickened.

Aedeagus (Fig. 34) quite different from *O. andreasi* and *O. andreasoides*: Main piece (PL: ca. 420 µm) elongate and slender, almost straight, ventrally slightly curved (lateral view); membrane near base of distal lobe with ca. ten micropores; subapical setae very short and inconspicuous; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe thin, conspicuously angulate (resembling a foot in ventral view), with a small apical hyaline part. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.25; apices slightly widened, with group of short setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 62): Known only from the type locality.

ETYMOLOGY: caligatus (Latin: booted); in reference to the peculiar shape of the aedeagal distal lobe.

Ochthebius (s.str.) *castellanus* sp.n.

TYPE LOCALITY: CWBS loc. 481.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Guangdong Prov. 25 km SE Shixing 24°50'23"N 114°14'03"E 8.11.2001, ca. 150 m Jäch & Komarek (CWBS 481)". **Paratype** ♀ (NMW): same locality data as holotype.

DIFFERENTIAL DIAGNOSIS: 1.45 (holotype) – 1.55 (paratype) mm long. In general appearance, size and shape of labrum, this species is very similar to *O. salebrosus*, from which it can be distinguished by the following characters: Dorsal surface at least faintly metallic; labrum more or less glabrous, not distinctly punctate; pronotal ears less strongly upturned anteriorly and posteriorly; elytral strial tubercles less prominent.

Aedeagus (Fig. 37): Main piece long (PL: ca. 330 µm), elongate and slender, rather straight in apical half (lateral view); membrane near base of distal lobe with ca. 13 micropores; subapical setae not observed; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe subtriangular and flat (lateral view). Parameres more or less sym-

metrical, close to main piece, inserted ventrally near basal 0.25; apices slightly widened, with group of short setae; right paramere slightly longer than left one.

Secondary sexual characters: Anterior margin of male labrum hardly perceptibly upturned; female elytral apices more abruptly acuminate. Ventrite VI more glabrous in male. Female tergite X with apical fringe of conspicuous bristles.

DISTRIBUTION (Fig. 62): Known only from the type locality.

ETYMOLOGY: castellanus (Latin: pertaining to a castle); in reference to Shuicheng [Water City] castle, a magnificent Chinese fortress, built near the type locality about 100 years ago in order to fend off bandits.

Ochthebius (s.str.) *enicoceroides* sp.n.

TYPE LOCALITY: CWBS loc. 237.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 14.6.1996 10 km NW Ya'an, 700m 3 km N Feixian leg. Ji & Wang (CWBS 237)". **Paratypes** (NMW): 1 ♂, 2 ♀♀, same locality data as holotype.

DESCRIPTION: 1.65 - 1.75 mm long. Habitus as in Fig. 10. Black, head, pronotum and elytra with distinct metallic (greenish, cupreous) lustre; body appendages usually paler brown or yellowish; palpi, knees and tarsi darker than remainder of legs. Upper surface very sparsely and inconspicuously covered by short whitish adpressed setae.

Labrum wider than long; superficially and unevenly punctate; anterior margin sexually dimorphic, distinctly excised. Clypeus rugosely punctate. Fronto-clypeal suture gently arched, not reaching lateral margin. Frons very densely and rugosely punctate; ocular grooves oval, slightly oblique, deeply impressed; ocelli well-developed, very close to eyes. Vertex with a shallow median impression. Eyes well-developed. Terminal segment of labial palpi very short and peg-like, ca. 0.43 times as long as penultimate segment.

Pronotum heart-shaped, wider than long, widest near anterior 0.4. Lateral margin abruptly arcuately constricted in posterior half. Anterior margin gently emarginate medially and laterally; postocular tooth distinct. Lateral margin of ears subcrenulate. Posterior margin rather evenly arched. Hyaline membrane narrow, confined to anterior and posterior margin and posterolateral emargination. Surface of disc densely punctate; punctures distinctly impressed, interstices glabrous. Ears more rugosely and more superficially punctate. Disc strongly convex in cross section; median groove present, well impressed, not reaching anterior and posterior margin, gradually tapering posteriad; anterior discal foveae more or less round, posterior foveae more oval and oblique, larger than anterior foveae; accessory fovea (see under *O. andreasi*) very weakly developed.

Elytra elongately oval, strongly convex in cross section; apically subacuminate. Disc with five rows of punctures between suture and shoulder; rows rather straight and regular; strial punctures moderately large, transverse, deeply impressed and densely arranged; rows separated by less than a puncture diameter; intervals between rows flat and smooth, glabrous; interstices between strial punctures only inconspicuously (mesal striae) or not at all (lateral striae) tuberculate. Lateral gutters moderately widely explanate. Pseudepipleura more or less reaching elytral apex.

Hypomeral antennal grooves deep, confined to anterior 0.5. Metaventral disc entirely pubescent. Ventrites I - V pubescent, ventrite VI glabrous.

Aedeagus (Fig. 38): Main piece (PL: ca. 400 µm) elongate and slender, ventrally curved (lateral view); membrane near base of distal lobe with ca. nine micropores; subapical setae very short and inconspicuous; apex acute and acuminate; DSA very large; phallobase distinctly asym-

metrical (ventral view). Distal lobe slender, conspicuously angulate (somewhat resembling a foot in ventral view), with small apical hyaline part. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.25; apices slightly widened, with group of moderately long, apical bristles; right paramere slightly longer than left one.

Secondary sexual characters: Anterior margin of male labrum thickened and distinctly upturned. Female tergite X with apical fringe of very long, strong bristles.

DIFFERENTIAL DIAGNOSIS: This species resembles *O. andreasoides*, *O. wangmiaoi*, and especially *O. caligatus*. It differs from *O. andreasoides* and *O. wangmiaoi* mainly in the less strongly explanate and more comprehensively punctate pronotal ears and in the distinctly thickened anterior margin of the male labrum. *Ochthebius caligatus* is distinctly larger with more densely punctate elytra.

DISTRIBUTION (Fig. 62): Known only from the type locality.

ETYMOLOGY: Named in reference to its general appearance, resembling some species of the subgenus *Enicocerus*.

Ochthebius (s.str.) *fujianensis* sp.n.

TYPE LOCALITY: CWBS loc. 240.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: FUJIAN, Chong'an Wuyi Shan, 1km W Wuyi Gong 250m, 15./18.1.1997 leg. Ji & Wang (CWBS 240)".

DIFFERENTIAL DIAGNOSIS: 1.4 mm long. Anterior margin of labrum very slightly upturned. Externally, this species is very similar to *O. salebrosus*, from which it can be distinguished by the following characters: Pronotal disc more strongly gibbose, appearing larger; pronotal ears less strongly upturned anteriorly and posteriorly; pronotal impressions slightly larger; elytra slightly more oval, appearing slightly shorter; elytral punctures larger, strongly transverse, less regularly arranged.

Aedeagus (Fig. 40): Main piece (PL: ca. 300 µm) elongate and slender, rather evenly curved (lateral view); membrane near base of distal lobe with ca. seven micropores; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe conspicuously bisinuous (lateral view), with small apical hyaline part. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.25; apices hardly noticeably widened, with group of short setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 62): Known only from the type locality.

ETYMOLOGY: Named in reference to the provenance of the type material.

Ochthebius (s.str.) *guangdongensis* sp.n.

TYPE LOCALITY: CWBS loc. 455.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Guangdong Prov. 50 km E Fengkai 23°27'36"N 111°54'36"E 30.10./2.11.2001, ca. 150 m Jäch & Komarek (CWBS 455)". **Paratypes** (NMW): 5 exs. (1 ♂, 4 ♀♀): same locality data as holotype.

DIFFERENTIAL DIAGNOSIS: 1.45 – 1.55 mm long. Externally, this species is very similar to *O. salebrosus*, from which it can be distinguished by the following characters: Dorsal surface at least faintly metallic; postocular pronotal tooth more prominent; pronotal ears less strongly upturned anteriorly and posteriorly; anterior and posterior pronotal foveae slightly larger.

Externally, *O. guangdongensis* differs from *O. castellanus* mainly in the more densely punctate elytra, and in the elytral tubercles being more prominent.

Aedeagus (Fig. 41): Main piece long (PL: ca. 310 µm), elongate and slender; dorsal margin sinuate in apical half; membrane near base of distal lobe with ca. eight micropores; subapical setae not observed; apex acute; DSA small; phallobase distinctly asymmetrical (ventral view). Distal lobe tubular, moderately long, strongly recurved (lateral view). Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.3; apices slightly widened, with group of moderately long setae; right paramere slightly longer than left one.

Secondary sexual characters: Female elytral apices more strongly acuminate. Ventrite VI more glabrous in male. Female tergite X with apical fringe of conspicuous bristles.

VARIABILITY: Labrum more or less impunctate, superficially shagreened or distinctly punctate; middle of clypeus varies from smooth and glabrous to strongly rugosely punctate.

DISTRIBUTION (Fig. 62): Known only from the type locality.

ETYMOLOGY: Named in reference to the provenance of the type material.

Ochthebius (s.str.) *jilanzhui* sp.n.

TYPE LOCALITY: CWBS loc. 221.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 8.6.1996 ca. 14 km N Ya'an City rd. to Shangli, 800m leg. Ji & Wang (CWBS 221)". **Paratypes** (CASS, NMW): 9 exs., same locality data as holotype; 8 exs.: "CHINA: Sichuan, 14.6.1996 ca. 10 km NW Ya'an, 700m 3 km N Feixian leg. Ji & Wang (CWBS 237)".

DIFFERENTIAL DIAGNOSIS: 1.4 – 1.6 mm long. This species belongs to the *O. salebrosus* complex. Elytra of female of *O. jilanzhui* more or less identical with those of holotype of *O. salebrosus*. *Ochthebius jilanzhui* can be distinguished from the other members of the complex by the shape of the pronotum: pronotal ears less widely explanate and slightly deflexed laterally; anterior and lateral margin of pronotal ears not significantly upturned; lateral margin of pronotal ears not evenly rounded, instead more or less angulate near middle, and often with a small tooth at posterior angle.

Aedeagus (Fig. 39): Main piece long (PL: ca. 290 µm), elongate and slender, evenly curved ventrad (lateral view); membrane near base of distal lobe with ca. seven micropores; subapical setae very short and inconspicuous; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe conspicuously angulate in ventral view, with large (laterally flattened) basal part and small distal part. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.25; apices hardly noticeably widened, with group of short setae; right paramere slightly longer than left one.

Secondary sexual characters: Anterior margin of male labrum hardly perceptibly upturned; anterior margin hardly noticeably excised in male, more distinctly (ca. 0.2 of length) excised in female; female elytral apices more abruptly acuminate. Female tergite X with apical fringe of short thick bristles.

VARIABILITY: Punctation of labrum and elytra slightly variable.

DISTRIBUTION (Fig. 62): Known only from the surroundings of Ya'an (Sichuan).

ETYMOLOGY: Named for Prof. Lanzhu Ji, who collected the type material, together with Assistant Prof. Miao Wang.

Ochthebius (s.str.) *salebrosus* PU, 1958

Ochthebius salebrosus PU 1958: 248. - HUA 1989. - JÄCH 1995.
Enicocerus salebrosus; HANSEN 1998.

TYPE LOCALITY: Chengjiang, ca. 75 km SE Kunming City, Chengjiang County, Yüxi Prefecture, Yünnan, southwestern China.

TYPE MATERIAL: **Holotype** ♀ (ZUG): "Farc /29 [hardly legible] \ Ochthebius (Henicocerus) salebrosus Pu \ Chengkiang, Yunnan, China Nov. 12, 1939 C. L. Pu \ Holotype \ 45798 [+ two Chinese characters, which probably denote the name of a person: 'Tongzhi Shen']".

SPECIES CONCEPT: Since this species was described from a single female the specific assignation remains ambiguous. I visited the area of the type locality in 1999, but failed to collect this species there. However, four specimens of the *O. strigosus* subgroup were collected during the CWBS at three different localities in Yünnan 1999: 1 ♂ (NMW): CWBS loc. 369; 1 ♂ (NMW): CWBS loc. 396; 2 ♀♀ (NMW): CWBS loc. 409. All four specimens are very similar to the holotype of *O. salebrosus*. In any case, more material must be examined to identify these specimens properly.

Both females from CWBS loc. 409 agree very well with the holotype. They are 1.35 and 1.55 mm long. The labrum is slightly more widely emarginate in the smaller specimen.

The males from CWBS loc. 369 and CWBS loc. 396 are 1.30 mm long. They differ from the females examined mainly in the anterior margin of the labrum being only very inconspicuously emarginate and in the anterior margin of the pronotal ear being less abruptly upturned. Genitally, these two males agree with each other very well in size (PL: 280 – 290 µm) and shape of the main piece, but they differ slightly in the shape of the distal lobe: ventral margin more strongly convex and hyaline apical part slightly larger in the specimen from CWBS loc. 369 (see Figs. 42, 43).

Despite the significant difference in the labral anterior margin it cannot be inferred that these two males are specifically different from *O. salebrosus*, because in at least one closely related species (*O. jilanzhui* sp.n.), the anterior margin of the labrum is sexually dimorphic. It is suggested strongly that suitable habitats are examined in Yünnan in order to collect more specimens to solve all taxonomic questions.

DESCRIPTION (holotype): 1.50 mm long. Black; body appendages dark (reddish) brown; knees and apices of tarsal segments black. Whitish semierect or adpressed setae of upper surface absent (rubbed off).

Head (except middle of clypeus) densely punctate. Labrum slightly deflexed; distinctly wider than long; anterior margin slightly excised medially (0.3). Fronto-clypeal suture arched. Ocular grooves deeply impressed; ocelli and eyes well-developed; ocelli close to eyes. Vertex with median impression.

Pronotum very similar to that of *O. strigoides* JÄCH (see JÄCH 1998b: Fig. 7); distinctly heart-shaped, wider than long, widest near anterior 0.3, with widely explanate ears; lateral margin abruptly arcuately constricted in posterior half. Anterior margin of ears distinctly upturned and emarginate laterally; postocular tooth present; posterior margin of ears weakly upturned. Lateral margin of ears subcrenulate. Posterior margin rather evenly arched. Hyaline membrane narrow, confined to anterior and posterior margin and posterolateral emargination. Surface of disc and lateral margin of ears very densely punctate; remainder of ears more or less glabrous. Disc strongly convex in cross section; median groove present, but very shallow and narrow near middle, not reaching anterior and posterior margin; anterior discal foveae deeply impressed and rounded; posterior discal foveae deeply impressed and obliquely elongate; accessory fovea on

lateral declivity of disc behind anterior margin (opening into lateral depression) and near posterior corners.

Elytra moderately long and slender; strongly convex in cross section. Disc with six rows of punctures between suture and shoulder; rows straight and regular; strial punctures small but deeply impressed and very densely arranged; interstices between strial punctures forming prominent elongate tubercles; rows separated by less than a puncture diameter; intervals between rows flat or weakly convex, smooth. Lateral gutters moderately widely explanate.

Underside not examined. However, metaventrite most probably entirely pubescent.

DISCUSSION: This species had been described in the subgen. *Enicocerus*; it is transferred here to *Ochthebius* s.str.

DISTRIBUTION (Fig. 62): China (Yünnan).

Ochthebius (s.str.) *sichuanensis* sp.n.

TYPE LOCALITY: Qingcheng Shan, ca. 600 m a.s.l., 103°30'E 30°55'N, 65 km NW Chengdu, 10 km W Taiping, Sichuan, China.

TYPE MATERIAL: **Holotype** ♂ (NMW): "China: Sichuan, Qingcheng Shan, ca.600m. 103. 30E, 3055N [103°30'E 30°55'N], 65km NW Chengdu, 10 km W Taiping, 4.VI.1997, river valley, leg. A. Pütz".

DIFFERENTIAL DIAGNOSIS: 1.45 mm long. Externally, *O. sichuanensis* is very similar to *O. castellanus*, from which it can be distinguished mainly by the shallowly excised labrum.

Aedeagus (Fig. 44): Main piece (PL: ca. 290 µm) slender, ventrally curved (lateral view); dorsal margin unevenly convex; membrane near base of distal lobe with ca. ten micropores; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe cylindrical, widening towards apex. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.30; apices slightly widened, with group of short setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 63): Known only from the type locality.

ETYMOLOGY: Named in reference to the provenance of the type material.

Ochthebius (s.str.) *stastnyi* sp.n.

TYPE LOCALITY: Concrete walls of swimming pool with slowly flowing thermal water (45°C), ca. 3600 m a.s.l., 20 km SE Zhongdian, Yünnan, China.

TYPE MATERIAL: **Holotype** ♂ (NMW): "CHINA – Yünnan Prov. 20 km SE Zhongdian 10.10. 1999 J. Šťastný leg. \ limestone bridge shore pool with thermal water (45°C) ca 3600 m a.s.l.". **Paratype** ♀ (NMW): same locality data as holotype.

DIFFERENTIAL DIAGNOSIS: 1.9 mm long. General appearance similar to that of *O. andreasi*. It can be distinguished easily from the latter by the following features: colouration black, without any metallic lustre; labral excision slightly wider; median impression on vertex more deeply impressed; vertex with pair of short, admedian longitudinal carinae; admedian pronotal foveae larger, more distinctly impressed and more sharply defined; pronotal disc less densely punctate; elytra more elongate.

Aedeagus (Fig. 45): Main piece (PL: ca. 350 µm) slender; distinctly curved basally, more or less straight in apical half (lateral view); membrane near base of distal lobe with ca. ten micropores; apex acute; DSA rather large; phallobase distinctly asymmetrical (ventral view). Distal lobe

conspicuously bisinuous (lateral view); apex strongly recurved. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.25; apices slightly widened, with group of short setae; right paramere slightly longer than left one.

Secondary sexual characters hardly apparent: Female tergite X with apical fringe of conspicuous bristles.

DISTRIBUTION (Fig. 63): Known only from the type locality.

ETYMOLOGY: Named for Jaroslav Šťastný (Liberec), excellent specialist of dytiscids.

Ochthebius (s.str.) *wangmiaoi* sp.n.

TYPE LOCALITY: CWBS loc. 346.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 5.8.1998 Leshan Pref. Emei Shan, ca. 600m Schönmann, Ji, Wang (CWBS 346)". **Paratypes** (NMW): 3 ♀♀, same locality data as holotype.

DIFFERENTIAL DIAGNOSIS: 1.65 – 1.85 mm long, with faint metallic lustre. This species is very similar to *O. andreasi* and *O. andreasoides*. Shape and punctation of pronotal disc as in *O. andreasoides*, but pronotal ears flatter and thus more similar to those of *O. andreasi*. Elytral punctation more or less as in *O. andreasi*, but elytral apices less distinctly produced.

Aedeagus (Fig. 46): Main piece (PL: ca. 370 µm) elongate and slender, almost straight, basally and apically curved (lateral view); membrane near base of distal lobe with ca. eight micropores; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe cylindrical, apically widened; with distinct apical hyaline area. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.2; apices very slightly widened, with group of short setae; right paramere slightly longer than left one.

Secondary sexual characters: Elytral gutter of female slightly wider than in male; elytral apices of female very slightly produced. Female tergite X with apical fringe of conspicuous bristles.

DISTRIBUTION (Fig. 63): Known only from the type locality.

ETYMOLOGY: Named for Miao Wang, who accompanied me on several, most pleasant expeditions in China.

Ochthebius (s.str.) *yaanensis* sp.n.

TYPE LOCALITY: CWBS loc. 237.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 14.6.1996 ca. 10 km NW Ya'an, 700m 3 km N Feixian leg. Ji & Wang (CWBS 237)".

DIFFERENTIAL DIAGNOSIS: Externally, this species is very similar to *O. castellanus* and *O. sichuanensis*. 1.5 mm long. Dorsal surface faintly metallic. Anterior margin of labrum more or less truncate, hardly noticeably emarginate in middle; surface of labrum slightly uneven, not distinctly punctate. Clypeus superficially punctate and shagreened. Elytra similar to those of *O. castellanus*, but punctation slightly less dense and apical third more widely rounded.

Aedeagus (Fig. 47): Main piece long (PL: ca. 300 µm), elongate and slender, rather straight in apical half (lateral view); membrane near base of distal lobe with ca. ten micropores; subapical setae very short and inconspicuous; apex acute; DSA moderately large; phallobase distinctly asymmetrical (ventral view). Distal lobe subtriangular (lateral view) and flat. Parameres more or less symmetrical, close to main piece, inserted ventrally near basal 0.2; apices slightly widened, with group of moderately long setae; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 63): Known only from the type locality.

ETYMOLOGY: Named in reference to the geographical distribution.

Ochthebius (s.str.) *punctatus* group

This species group contains species with distinctly irregular elytral punctation (traditionally regarded as the subgen. *Bothochius*) and a number of black species with more or less regular elytral striae and conspicuous adpressed whitish pubescence. Pubescence of epipleura reaching at least level of posterior 0.25 of metaventrite. Protarsi of male with adhesive setae.

In Mainland China, this species group is represented by nine species, two of which are described herein.

Key to Chinese species of the *Ochthebius* (s.str.) *punctatus* group

1 Elytral punctures small, numerous, inconspicuous, and strongly irregular, often hardly apparent on densely shagreened surface. ..... ***verrucosus***

\- Elytral punctation distinct. 2

2 Head and pronotum black, elytra brown. ..... ***flexus***

\- Dorsal surface entirely black. 3

3 Anterior margin of labrum distinctly excised. 4

\- Anterior margin of labrum not distinctly excised. 7

4 Pronotal ears short and distinctly convex (gibbose). 5

\- Pronotal ears longer, flat. 6

5 Elytral gutter distinctly wider. PL of aedeagal main piece ca. 500 µm; ventral margin of distal lobe not emarginate subapically (Fig. 58). Tibet. ..... ***ovatus***

\- Elytral gutter narrower. PL of aedeagal main piece ca. 430 - 470 µm long; ventral margin of distal lobe characteristically emarginate subapically (Fig. 50). Sichuan. ..... ***gonggashanensis***

6 Aedeagal distal lobe flat, ventral margin distinctly convex, dorsal margin not emarginate subapically (Fig. 48). Sichuan. ..... ***argentatus***

\- Aedeagal distal lobe subcylindrical, ventral margin not distinctly convex, dorsal margin characteristically emarginate subapically (Fig. 49). Tibet. ..... ***caucasicus***

7 Elytral punctures arranged in regular and distinctly impressed striae. Aedeagal main piece slender, apex rounded (lateral view); distal lobe very small and inconspicuous; parameres firmly contiguous with main piece (Fig. 56). ..... ***opacipennis***

\- Elytral punctation largely irregular. Aedeagal main piece robust, apex acute (lateral view); distal lobe large; parameres not firmly contiguous with main piece (Figs. 49, 51, 54, 55). These three species cannot be distinguished externally; in China they are allopatric. 8

8 Dorsal margin of aedeagal distal lobe characteristically emarginate subapically (Fig. 49). Tibet ..... ***caucasicus***

\- Dorsal margin of aedeagal distal lobe not characteristically emarginate subapically (Figs. 51, 54, 55). Yünnan, Sichuan, Liaoning, Jilin. 9

9 Ventral margin of aedeagal main piece convex near middle; membrane near base of distal lobe with ca. 30 - 40 micropores; distal lobe slightly recurved (Fig. 51). Yünnan. ..... ***klapperichi***

\- Ventral margin of aedeagal main piece straight or slightly concave near middle; membrane near base of distal lobe with ca. 10 - 20 micropores; distal lobe subcylindrical (Figs. 54, 55). Sichuan, Liaoning, Jilin. ..... ***lobatus***

Ochthebius (s.str.) *argentatus* sp.n.

TYPE LOCALITY: CWBS loc. 227.

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Sichuan, 10.6.1996 N Ya'an Baoxing County ca. 2 km NE Baoxing, 1000m leg. Ji & Wang (CWBS 227)".

ADDITIONAL MATERIAL EXAMINED: 2 ♀♀ (NMW), same label data as holotype.

DIFFERENTIAL DIAGNOSIS: 1.9 – 2.1 mm long (holotype: 2.0 mm). *Ochthebius argentatus* can be distinguished from *O. klapperichi* and *O. lobatus* (according to present species concept) by the more strongly excised anterior margin of the labrum; from *O. flexus* by the more strongly excised anterior margin of the labrum, by the pronotal ears being more rounded laterally, by the slightly more regularly punctate elytral striae, and by the darker elytra; from *O. gonggashanensis* by the flatter and longer pronotal ears, by the less oval elytra, by the slightly less regular elytral striae, and by the narrower elytral gutter; from *O. inermis* SHARP by the excised anterior margin of the labrum, by the more densely punctate pronotum and elytra; from *O. opacipennis* by the excised anterior margin of the labrum, and by the much smoother dorsal surface; from *O. ovatus* by the flatter and longer pronotal ears, by the less oval elytra, by the irregular elytral striae, by the narrower elytral gutter, and by the absence of a distinct parahumeral elytral impression; from *O. verrucosus* by the excised anterior margin of the labrum, and by the much smoother dorsal surface.

Due to the variability of *Ochthebius caucasicus*, I was not able to find significant external distinguishing characters separating these two species; however, in *O. caucasicus* the elytral striae are usually more distinctly irregular and the elytral gutter is narrower.

Aedeagus (Fig. 48): Main piece (PL: 380 µm) elongate and slender, strongly curved ventrad near basal 0.25, then more or less straight (lateral view); membrane near base of distal lobe with ca. 12 micropores; subapical setae short; apex acute and acuminate (lateral view); phallobase asymmetrical (ventral view). Distal lobe elongate, slightly recurved, ventral margin widened before apex (lateral view); strongly compressed laterally (flat); with short hyaline apical area. Parameres more or less symmetrical, very thin, slightly separated from main piece, inserted ventrally near phallobase; apices not significantly widened, with group of moderately long, apical bristles.

Secondary sexual characters probably as in *O. gonggashanensis* (see below).

DISCUSSION: The two females from the type locality agree very well with the holotype in the most important characters (general appearance, anterior margin of labrum, shape of pronotal ears, punctation of pronotum and elytra). They differ from each other in a few characters (e.g. size, width of elytral gutter), which may be credited to intraspecific variability.

DISTRIBUTION (Fig. 63): Known only from the type locality.

ETYMOLOGY: argentatus (Latin: silvery); in references to the silvery-whitish pubescence.

Ochthebius (s.str.) *caucasicus* KUWERT, 1887

Ochthebius caucasicus KUWERT 1887: 377 (389). - d'ORCHYMONT 1943. - JÄCH 1989a, 1995. - HANSEN 1998. – JÄCH & SHARMA 1998.

TYPE LOCALITY: Tbilisi, Georgia.

TYPE MATERIAL: **Lectotype** ♂ (MHNP). **Paralectotype**: 1 ex. (MHNP).

DIAGNOSIS: 2.0 – 2.5 mm long. Habitus as in Fig. 11. This species is characterized by the distinctly irregular elytral punctation and by the narrow elytral gutter. Due to its wide distri-

bution this species is somewhat variable in certain characters; for instance, the labrum varies strongly in total length and in the shape and extent of its anterior excision.

Aedeagus (Fig. 49): Main piece (PL: ca. 355 µm in specimens from Mongolia) elongate and slender, very strongly curved ventrad near basal 0.3; membrane near base of distal lobe with ca. 20 micropores; subapical setae comparatively distinct; apex acute and acuminate (lateral view); dorsal margin strongly convex (forming large DSA) and then slightly emarginate before apex; phallobase asymmetrical (ventral view). Distal lobe elongate, cylindrical, apically widened (lateral view); dorsal margin with characteristic preapical notch. Parameres more or less symmetrical, very thin, slightly separated from main piece, inserted ventrally near basal 0.3; apices not significantly widened, with group of moderately long, apical bristles; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 63): Turkey, Georgia, Armenia, Turkmenistan, Kazakhstan, Uzbekistan, Tajikistan, Afghanistan, Nepal, China (Tibet), Kyrgyzstan, Mongolia.

Ochthebius (s.str.) *flexus* Pu, 1958

Ochthebius flexus PU 1958: 255. - HUA 1989. - JÄCH 1989a, 1995. - HANSEN 1998.
? *Ochthebius orientalis* JANSSENS 1962: 5. - JÄCH 1989a. - HANSEN 1998. - JÄCH & SHARMA 1998.

TYPE LOCALITY: Lufengcun ("Lou-fong-tsouen"), Qüjing Prefecture, Lunan Yi Autonomous County, near the road from Kunming to Kaiyuan City, ca. 75 - 80 km SE of Kunming.

TYPE MATERIAL: **Holotype** ♂ (ZUG): "Lou-fong-tsouen, Yunnan, China Mar. 26, 1940 C. L. Pu \ Ochthebius(Bothochius) flexus Pu \ Holotype"; aedeagus not found, probably slide-mounted and kept elsewhere. **Paratypes**: 1 ♀ (ZUG): "Lou-fong-tsouen, Yunnan, China Mar. 26, 1940 C. L. Pu \ Ochthebius(Bothochius) flexus Pu \ Allotype"; 2 ♀♀ (ZUG) from the type locality, locality labels written in Chinese characters; 1 ♂, 2 ♀♀ (UMS): "Lou-fong-tsouen, Yunnan March 26, 1940 Coll. C.L. Pu \ Ochthebius(Bothochius) flexus Pu Det: C. L. Pu \ P A R A T Y P E" (male lacking aedeagus). According to the original description, the total number of paratypes (incl. the "allotype") should be eight. I was not able to trace the two missing paratypes. The two female paratypes kept in the ZUG are probably not conspecific with the holotype (elytra and body appendages darker). One of the females kept in the UMS undoubtedly belongs to *O. opacipennis*.

SPECIES CONCEPT: The identification of *O. flexus* remains enigmatic because of the absence of the aedeagus of the holotype. The species concept proposed by JÄCH (1989a) was based on specimens from Nepal, because their aedeagi resemble the aedeagus of *O. flexus* illustrated by PU (1958: Fig. 5). However, recently I was able to examine the external morphology of the holotype of *O. flexus*, which is definitely more similar to *O. orientalis* than to *O.* cf. *flexus* (sensu JÄCH 1989a) mainly due to colouration of the elytra. Therefore, at present it cannot be excluded, that *O. orientalis* is in fact a junior synonym of *O. flexus*; the Nepalese specimens of *O.* cf. *flexus* (sensu JÄCH 1989) probably represent an undescribed species.

In any case, the exact species concept can be provided only after the aedeagus of the holotype is retrieved or if material is collected from the type locality.

DIAGNOSIS (holotype): 2.0 mm long. Head and pronotum dark brown, almost black, elytra paler brown. Anterior margin of labrum rather distinctly upturned, not excised. Pronotal ears not gibbose. Elytral punctation distinctly irregular.

Aedeagus (see PU 1958: Fig. 5). The aedeagi of *O. orientalis* (Fig. 53) and *O.* cf. *flexus* (sensu JÄCH 1989a) (Fig. 52) are in fact rather similar and the illustration published by PU (1958) does not provide enough details to assure an unambiguous assignation.

DISTRIBUTION (Fig. 63): Known with certainty only from the type locality. However, if the synonymy with *O. orientalis* is confirmed this species is distributed as follows: Afghanistan, Tajikistan, India (Uttar Pradesh), Nepal and Yünnan. First record for Tajikistan.

Ochthebius (s.str.) *gonggashanensis* sp.n.

TYPE LOCALITY: Margin of gravel pool with warm water close to Hailuo-Gou-Glacier stream, Daxue Shan, Gongga Shan, Hailuogou Glacier Park, 2100 m a.s.l., 102°04'E 29°36'N, Ganzi Tibet Autonomous Prefecture, Sichuan, China.

TYPE MATERIAL: **Holotype** ♂ (NMW): "China: Sichuan, Ganzi pref., Daxue Shan Gongga Shan Mt., Hailougou [!] glacier park 102.04E, 29.36N [102°04'E 29°36'N], river valley ca. 1 km above Camp I, 2100m, 28./31.V. 1997 leg. A. Pütz". **Paratypes** (CASS, CPE: 24, MTD: 9, NMW, UMS: 5): 206 exs., same locality data as holotype; 2 exs.: "W-Sichuan: Ya'an Pref.,Shimian Co. Daxue Shan, road betw. Anshunchang-Wanba, 20km WSW Shimian, 1500m 9. VII. 1999, leg.A. Pütz".

DESCRIPTION: 1.8 – 2.4 mm long. Black; head and pronotum usually with very faint metallic (greenish) lustre; elytra very faintly metallic; maxillary palpi brown, apical segment dark brown; legs yellowish. Upper surface very sparsely and inconspicuously covered with short whitish adpressed setae.

Labrum slightly deflexed; wider than long; faintly and unevenly punctate, densely microreticulate; anterior margin rimmed, sexually dimorphic, distinctly excised in anterior 0.43 – 0.50, excision V-shaped or U-shaped. Clypeus very densely micropunctate, matt; anterior angles produced into short spines. Fronto-clypeal suture distinctly arched. Frons rugosely punctate, interstices more or less densely micropunctate; ocular grooves deeply impressed; ocelli well-developed, very close to eyes. Vertex with distinct median impression. Eyes well-developed. Terminal segment of labial palpi comparatively long, peg-like, ca. 0.6 - 0.7 times as long as penultimate segment.

Pronotum heart-shaped, wider than long, widest near anterior 0.3. Lateral margin more or less gradually tapering after anterior 0.4, more distinctly arcuately emarginate in posterior 0.3, with a rather distinct tooth at posterior 0.3. Anterior margin gently emarginate laterally; postocular tooth (behind lateral margin of eye) very small and indistinct or entirely absent. Lateral margin of ears subcrenulate. Posterior margin almost evenly arched. Hyaline membrane well-developed, distinctly produced above scutellum and behind mesal margin of eyes; interrupted (lacking) from anterior 0.3 of lateral margin. Surface of disc moderately densely punctate, interstices rarely wider than diameter of puncture; punctures distinctly impressed, interstices vary from glabrous to densely micropunctate and matt. Ears more rugosely punctate and more densely micropunctate, entirely matt. Disc moderately strongly convex in cross section; median groove present, almost completely effaced near posterior 0.45, not reaching anterior and posterior margin; anterior discal foveae subcircular, posterior foveae more oval and oblique, larger than anterior foveae; anterior accessory fovea very weakly developed, posterior accessory foveae distinct, oval, strongly oblique. Sublateral groove wide, well impressed, not reaching anterior margin. Ears deflexed.

Elytra elongately oval, strongly convex in cross section; apically subacuminate. Disc with five rows of punctures between suture and shoulder, short accessory stria with up to five small punctures usually present; rows not very straight and regular; strial punctures small, subcircular, shallowly impressed, moderately densely arranged; interstices between strial punctures vary from very small to about a puncture diameter; rows separated by distinctly more than a puncture diameter; intervals between rows flat or hardly perceptibly convex, superficially or distinctly microreticulate. Lateral gutter distinctly explanate, sexually dimorphic. Pseudepipleura and epipleura very wide in anterior half, then gradually tapering, almost reaching elytral apex; epipleura (pubescent part) distinctly wider than pseudepipleura in anterior 0.3, obliterated near middle.

Hypomeral antennal grooves deep, confined to anterior 0.5. Metaventral disc more or less strongly convex, entirely pubescent. Legs rather thin; protarsus sexually dimorphic. Ventrites I - V pubescent, ventrite VI glabrous.

Aedeagus (Fig. 50): Main piece (PL: ca. 430 - 470 µm) elongate and slender, strongly curved ventrad near basal 0.3, then more or less straight (lateral view); membrane near base of distal lobe with ca. 13 micropores; subapical setae comparatively distinct; apex acute and acuminate (lateral view); phallobase asymmetrical (ventral view). Distal lobe elongate, apically widened, slightly sinuous and somewhat emarginate subapically (lateral view), slightly compressed laterally; hyaline apical area on left side. Parameres more or less symmetrical, very thin, slightly separated from main piece, inserted ventrally near basal 0.3; apices not significantly widened, with group of moderately long, apical bristles; right paramere slightly longer than left one.

Secondary sexual characters: Anterior margin of male labrum more strongly rimmed. Female elytral intervals often more distinctly shagreened. Lateral elytral gutter of female usually more widely explanate medially. First and second tarsal segment of male enlarged, ventrally densely covered with adhesive setae. Female tergite X with short and rather thin bristles.

VARIABILITY: Remarkably variable features of this species include the body size, the shape of the labral emargination, the size of the terminal segment of labial palpi, the shape of the posterior pronotal discal foveae, and the width of the mesoventral process.

DIFFERENTIAL DIAGNOSIS: *Ochthebius gonggashanensis* is quite similar to *O. ovatus*, from which it can be distinguished by the elytral gutter being narrower and by the aedeagal main piece being shorter, and the ventral margin of the distal lobe being characteristically emarginate subapically.

DISTRIBUTION (Fig. 64): Known only from Sichuan.

ETYMOLOGY: Named in reference to the type locality.

Ochthebius (s.str.) *klapperichi* JÄCH, 1989

Ochthebius klapperichi JÄCH 1989a: 105. - HANSEN 1998.

TYPE LOCALITY: Bashgul Valley, Konar Province, Nuristan, Afghanistan.

TYPE MATERIAL: **Holotype** ♂ (ISNB). **Paratype**: 1 ♂ (NMB).

ADDITIONAL MATERIAL EXAMINED:
C H I N A: YÜNNAN: 1 ♂ (NMW): CWBS loc. 397.
M Y A N M A R: CHIN STATE: 2 ♂♂ (NMW): 10 km NW Kalemyo, 300 m a.s.l., 19.VI.2000, leg. M.-L. Jeng.

DIAGNOSIS: 2.0 – 2.3 mm long. I was not able to find significant external characters to distinguish this species from *O. caucasicus* and *O. lobatus*.

Aedeagus (Fig. 51): Main piece (PL: 350 - 370 µm) elongate and somewhat stout, strongly curved near basal 0.25, then more or less straight (lateral view); ventral margin convex near middle; dorsal margin strongly convex (forming large DSA) and then slightly emarginate before apex; membrane near base of distal lobe with ca. 30 - 40 (!) micropores; subapical setae well-developed; apex acute and acuminate (lateral view); right side of main piece with very large hyaline area; phallobase asymmetrical (ventral view). Distal lobe elongate, slightly recurved, ventral margin widely convex (lateral view); slightly compressed laterally; with pronounced hyaline area comprising most of apex and ventral area; orifice of ejaculatory duct on ventral side (far from dorsoapical corner). Parameres more or less symmetrical, very thin, slightly separated from main piece, inserted ventrally close to phallobase; apices not significantly widened, with group of moderately long, apical bristles; right paramere slightly longer than left one.

The aedeagus of *O. klapperichi* is superficially similar to that of *O. imbensimbi* JÄCH from Afghanistan, India and Nepal (see JÄCH 1989a: Fig. 6). However, it can be distinguished easily from the latter by the DSA of the main piece being larger, by the hyaline area of the right side of the main piece being much larger and never furcate basally (lateral view), by the larger number

of micropores, and by the position of the orifice of the ejaculatory duct (being closer to dorso-apical angle of distal lobe). The apical margin appears rather straight in the specimen illustrated by JÄCH (1989a: Fig. 6); however, this character is somewhat variable and I have seen numerous specimens with a more convex apical margin.

The aedeagus of *O. almorensis* JÄCH (India, Nepal) can be distinguished easily by the very strongly hump-backed dorsal margin of the main piece (DSA almost rectangular).

VARIABILITY: The aedeagi from the few populations examined are slightly variable. In the Yünnan specimen the dorsal margin of the distal lobe is more distinctly and more angulately recurved and the distal lobe of the Burmese specimens is slightly shorter and wider than in the holotype from Afghanistan and the paratype from India. I could not detect any notable variability in the size and shape of the main piece (incl. size and shape of its characteristic lateral hyaline area).

DISCUSSION: This species is well characterized by several aedeagal features: e.g., shape of dorsal margin of main piece, number of micropores, size and shape of hyaline area of main piece, position of orifice of ejaculatory duct. *Ochthebius klapperichi* is obviously a rare species as it is known from only four widely separated localities between Afghanistan and Yünnan. Definitely, more material is needed to decide whether these populations deserve specific or subspecific status.

DISTRIBUTION (Fig. 64): Afghanistan, India (Uttar Pradesh), Myanmar, China (Yünnan). First record for China and Myanmar. Remarkably, this species has never been recorded from Nepal.

Ochthebius (s.str.) *lobatus* PU, 1958

Ochthebius lobatus PU 1958: 256. - HUA 1989. - JÄCH 1989a, 1995. - HANSEN 1998.

TYPE LOCALITY: Chongqing, China.

TYPE MATERIAL: **Holotype** ♂ (ZUG): "... [Chinese characters] ... 1942, 8, 8 ... [Chinese characters] ... \ Ochthebius (B.) flexus subsp. lobatus Pu \ Holotype"; aedeagus not found, probably slide-mounted and kept elsewhere. **Paratypes**: 1 ♀ (ZUG), same label data as holotype, except "Allotype", head and pronotum lacking; 3 ♀♀ (ZUG), more or less same label data as holotype, except "PARATYPE"; 8 exs. (UMS): "Chungking [Chongqing], Szechuan [Sichuan] Aug. 8, 1942 Coll. S.C. Chen \ Ochthebius flexus lobatus Pu \ Det: C. L. Pu \ P A R A T Y P E". All aedeagi lacking. According to the original description, the total number of paratypes (incl. the "allotype") should be 27. I was not able to trace the 15 missing paratypes.

ADDITIONAL MATERIAL EXAMINED:
C H I N A: JILIN: 8 exs. (NMW): CWBS loc. 95; LIAONING: 11 exs. (NMW): CWBS loc. 98; SICHUAN: 6 exs. (NMW): CWBS loc. 221; YÜNNAN: 2 exs. (NMW): CWBS loc. 349.

SPECIES CONCEPT: The identification of *O. lobatus* remains unclear because all aedeagi of the type series examined so far are absent. The species concept proposed here is based on a widespread non-synonymous species (known from Jilin, Chongqing, Liaoning, Sichuan and Yünnan), which cannot be distinguished externally from *O. klapperichi* and *O. caucasicus*. Although it must be kept in mind that this species concept is merely hypothetical, it is probably correct since the latter two species have not been recorded from Sichuan.

DIAGNOSIS: 2.1 – 2.3 mm long. I was not able to find significant external characters to distinguish this species from *O. caucasicus* and *O. klapperichi*. In the holotype and at least some specimens from CWBS loc. 221, the anterior margin of the labrum is broadly beaded and slightly excised.

Aedeagus (Figs. 54, 55): Main piece (PL: 340 - 350 µm) elongate and stout, ventral margin strongly curved near basal 0.25 (lateral view); dorsal margin strongly convex (forming large DSA) and then slightly emarginate before apex; membrane near base of distal lobe with ca. 10 -

20 micropores; subapical setae well-developed; apex acute and acuminate (lateral view); phallobase asymmetrical (ventral view). Distal lobe elongate, cylindrical. Parameres more or less symmetrical, very thin, slightly separated from main piece, inserted ventrally close to phallobase; apices not significantly widened, with group of short apical bristles; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 64): China (Jilin, Liaoning, Chongqing, Sichuan, Yünnan). *Ochthebius lobatus* is recorded for the first time from Jilin, Liaoning and Yünnan.

Ochthebius (s.str.) *opacipennis* CHAMPION

Ochthebius opacipennis CHAMPION 1920: 167. - KNISCH 1924. – d'ORCHYMONT 1925, 1928. - JANSSENS 1962. - JÄCH 1989b, 1992b. - HANSEN 1998. - JÄCH & SHARMA 1998.
Ochthebius exilis PU 1958: 256. – HUA 1989. - JÄCH 1995. - HANSEN 1998.

TYPE LOCALITY: Almora, Kumaon, Uttar Pradesh, northern India.

TYPE MATERIAL: **Lectotype** ♂ (NHML). **Paralectotypes**: 2 exs. (NHML).

ADDITIONAL MATERIAL EXAMINED (in addition to specimens listed already by JÄCH 1992b):
C H I N A: YÜNNAN: 19 exs. (NMW): Diaolin Nat. Res., 100 km W Kunming, V.1993, leg. Jendek & Šauša.
N E P A L: MID WESTERN NEPAL: 2 exs. (NMW): Jhupra Khola, Surkhet, Samoujighat, 19.XII.1993, leg. S. Sharma; 1 ex. (NMW): Jhimruk Nadi, Pyuthan, Kwadi, 25.XII.1993, leg. S. Sharma; WESTERN NEPAL: 1 ex. (NMW): Saure Khola, Argha Khachi, Chidika, 17.I.1994, leg. S. Sharma; 6 exs. (MTD, NMW): Annapurna Region, S Krapa Danda, 1800 – 1900 m a.s.l., 27./28.V.1997, leg. O. Jäger; 12 exs. (MTD, NMW): Mt. Panchase, 20 km W Pokhara, 2300 m a.s.l., 20.V.1997, leg. O. Jäger; 25 exs. (MTD, NMW): Annapurna Region, small stream, Madi Khola Valley, 8 km N Siklis, 1900 m a.s.l., 4.V.1996, leg. O. Jäger; 1 ♂ (MTD): river near Khilang, Annapurna south slope, Madi Khola Valley, 1950 m a.s.l., 12./13.V.1996, leg. O. Jäger; 2 exs. (MTD): small river near Siklis, Annapurna south slope, Madi Khola Valley, 1750 m a.s.l., 26.IV.1996, leg. O. Jäger; 2 exs. (MTD): torrent above Siklis/Khilang, Annapurna, Siklis Mts., 2300 m a.s.l., 24.IV.1996, leg. O. Jäger; 4 exs. (MTD): stream below Dhara Kharka, Annapurna south slope, Madi Khola Valley, 3 km N Siklis, 1750 m a.s.l., 26.IV.1996, leg. O. Jäger; 3 exs. (MTD): small river near Siklis, Annapurna Mts., 2200 m a.s.l., 24.IV.1996, leg. O. Jäger; 1 ♂ (MTD): Kali Khola below Garlang, Annapurna Region 1000 - 1200 m a.s.l., 18.IV.1996, leg. O. Jäger; 4 exs. (MTD): Mt. Panchase, stream above Sidhane, ca. 15 km W Pokhara, 1700 - 1800 m a.s.l., 16.V.1997, leg. O. Jäger; 1 ♂ (MTD): stream near Bhaise, below Kwinkal, Annapurna Region, Madi Khola Valley, 500 m a.s.l., 15.V.1996, leg. O. Jäger.
M Y A N M A R: CHIN STATE: 1 ex. (NMW): 10 km NW Kalemyo, 300 m a.s.l., 19.VI.2000, leg. M.-L. Jeng; 11 exs. (NMW): near Sualin, 24.VI.2000, leg. M.-L. Jeng; 8 exs. (NMW): Suzan – Tidim, 21.VI.2000, leg. M.-L. Jeng.

SYNONYMY: *Ochthebius exilis*, **syn.n.**

> TYPE MATERIAL: **Holotype** ♂ (ZUG); aedeagus not found, probably slide-mounted and kept elsewhere. **Paratypes**: 5 exs. (ZUG), not examined; 2 exs. (UMS): "Lou-fong-tsouen [Lufengcun], Yunnan March 26, 1940 Coll. C.L. Pu \ Ochthebius (Hymenodes) exilis Pu Det: C. L. Pu \ P A R A T Y P E". According to the original description, there should be nine paratypes (including the "allotype"); I have not been able to trace the remaining two paratypes.

Although the holotype lacks the aedeagus there is no doubt about the new synonymy proposed here, because I have been able to examine 19 specimens which were collected recently in Yünnan not far from the type locality of *O. exilis*.

DIAGNOSIS: 1.6 – 1.9 mm long. Habitus as in Fig. 12. This species is characterized by the entirely shagreened dorsal surface, by the strongly elongate labrum lacking a distinct median notch, and by the impressed regular elytral striae.

Aedeagus (Fig. 56): very characteristic and distinctly deviating from other members of the species group. Main piece slender (PL: ca. 330 µm), more or less evenly curved, apex rounded (lateral view); distal lobe very small and inconspicuous; parameres firmly contiguous with main piece.

VARIABILITY: Remarkably, the shape of the aedeagus of specimens from western populations (Afghanistan, Uttar Pradesh, Nepal) is quite constant, while specimens from Myanmar display a considerable intrapopulational variability with regard to the curvature of the main piece: in specimens from Kalemyo the main piece varies from strongly (see JÄCH 1992b: Fig. 11) to weakly curved, with distance between phallobase and base of parameres being much shorter.

DISTRIBUTION (Fig. 64): Afghanistan, India, Nepal, Myanmar, China (Yünnan). First record for Myanmar.

Ochthebius (s.str.) *ovatus* JÄCH, 1989

Ochthebius ovatus JÄCH 1989b: 18. - JÄCH 1992b, 1995. - HANSEN 1998. - JÄCH & SHARMA 1998.

TYPE LOCALITY: River (tributary of Sun Kosi or Buth Kosi), ca. 1600 m a.s.l., Tatopani, south of Kodari, at Nepal-Tibet border.

TYPE MATERIAL: **Holotype** ♂ (NMW): **Paratypes**: 9 exs. (NMW, NHML).

DIAGNOSIS: 2.1 – 2.5 mm long. Pronotal ears short, gibbose. Elytra oval, elytral gutter widely explanate in female; elytral striae more or less regular.

Aedeagus (Fig. 58): very similar to that of *O. gonggashanensis*, from which it can be distinguished by the size (PL: ca. 500 µm) and by the ventral margin of the distal lobe, which is not characteristically emarginate subapically.

DISTRIBUTION (Fig. 64): Nepal, India (Sikkim), China (Tibet).

Ochthebius (s.str.) *verrucosus* PU, 1942

Ochthebius verrucosus PU 1942: 170. - PU 1958. - HUA 1989. - JÄCH 1989a, 1995. - HANSEN 1998.

TYPE LOCALITY: Effluent of Fuxian Lake, ca. 1800 m a.s.l., ca. 75 km SE Kunming City, Chengjiang County, Yüxi Prefecture, Yünnan, southwestern China.

TYPE MATERIAL: **Holotype** ♂ (depository unknown), not examined. **Paratypes**: 5 exs. (ZUG); 2 ♀♀ (UMS): "Chengkiang [Chengjiang], Yunnan. Oct. 20, 1939 Coll. C. L. Pu \ Ochthebius (Bothochius) verrucosus Pu \ P A R A T Y P E". Head, pronotum and left elytron lacking in one of these paratypes.

According to the original description, the holotype of *O. verrucosus* is deposited in the "collection of C. L. Pu"; it is, however, not deposited in the ZUG. According to the original description, there should be 245 paratypes (incl. the "allotype") from the type locality and from Lufengcun (ca. 75 - 80 km S of Kunming); I could not trace the remaining 239 specimens.

ADDITIONAL MATERIAL EXAMINED:
C H I N A: YÜNNAN: 1 ex. (NMW): CWBS loc. 59; 10 exs. (NMW): CWBS loc. 349; 2 exs. (NMW): CWBS loc. 350; 8 exs. (NMW): CWBS loc. 383; 3 exs. (NMW): CWBS loc. 384; 1 ex. (NMW): CWBS loc. 397; 5 exs. (NMW): CWBS loc. 408; 1 ex. (NMW): Lijiang, 1800 m a.s.l., 26.53°N 100.18°E, VI./VII.1992, leg. Bečvář; 16 exs. (NMW): Baoshan, VI.1993, leg. Jendek & Šauša; 23 exs. (NMW): Diaolin Nat. Res., 100 km W Kunming, V.1993, leg. Jendek & Šauša.

SPECIES CONCEPT: Despite the fact that the male paratypes lack aedeagi, there remains no doubt about the identity of this very characteristic species.

DIAGNOSIS: 1.90 – 2.25 mm long. This species is very diagnostic. Dorsal surface of pronotum and elytra densely shagreened. Labrum at most slightly emarginate, never strongly excised. Elytral punctures very small, hardly apparent; never aranged in lines.

Aedeagus (Fig. 57): Main piece (PL: 390 µm) elongate and slender, strongly curved ventrad near basal 0.25; membrane near base of distal lobe with ca. 10 - 15 micropores; subapical setae

comparatively distinct; apex acute and acuminate (lateral view); dorsal margin not distinctly humped; phallobase asymmetrical (ventral view). Distal lobe elongate, more or less cylindrical, apically widened (lateral view). Parameres more or less symmetrical, very thin, slightly separated from main piece, inserted ventrally near basal 0.2; apices not significantly widened, with group of moderately long, apical bristles; right paramere slightly longer than left one.

DISTRIBUTION (Fig. 64): China (Yünnan).

Discussion

So far, 41 species of *Ochthebius* are recorded from Mainland China, which probably reflects less than 50 % of the total number of species expected to occur in this country. The degree of endemism obviously is very high in the Chinese species of *Ochthebius*. Numerous species are known from only a single locality. Many of the species are restricted to remote mountain ranges.

The genus *Ochthebius* is especially diverse in the province of Sichuan, from which 18 species are presently known.

Only one of the 41 species, *O. satoi*, occurs in Mainland China and Taiwan.

Acknowledgements

I am very much obliged to J. Bergsten, P.J. Clausen, B. Gustafsson, M. Hartmann, O. Jäger, M.-L. Jeng, L. Ji, F. Jia, A. Komarek, C.-F. Lee, A. Pütz, H. Schillhammer, H. Schönmann, K. Schönmann, J. Šťastný, and M. Wang for sending material, providing useful information, or for assistance during field work. Special thanks are due to W. Zelenka for the habitus illustrations.

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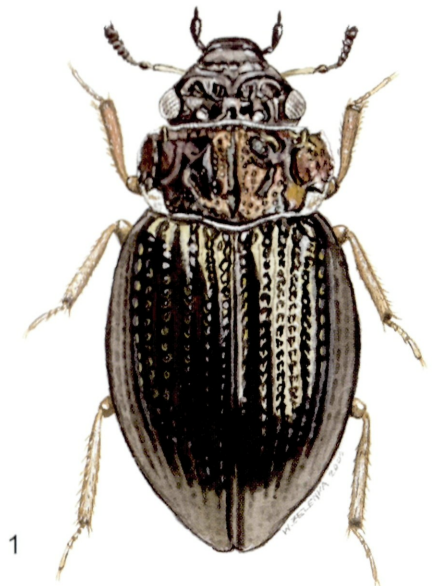
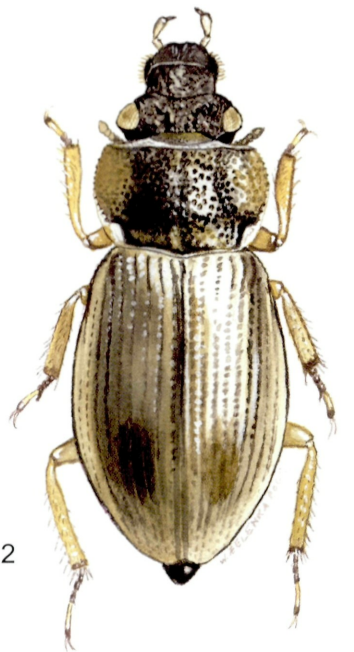
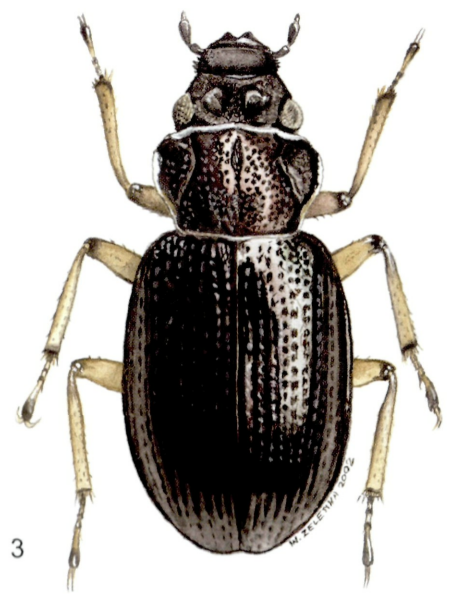
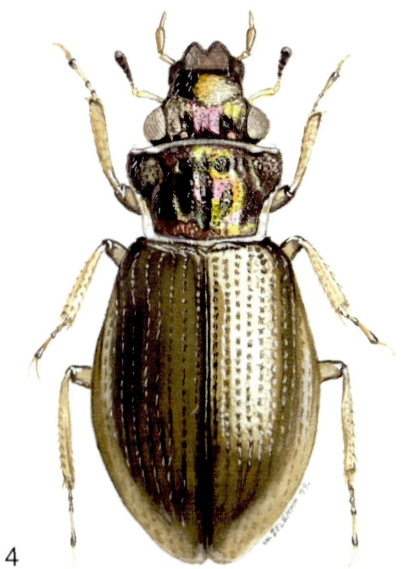
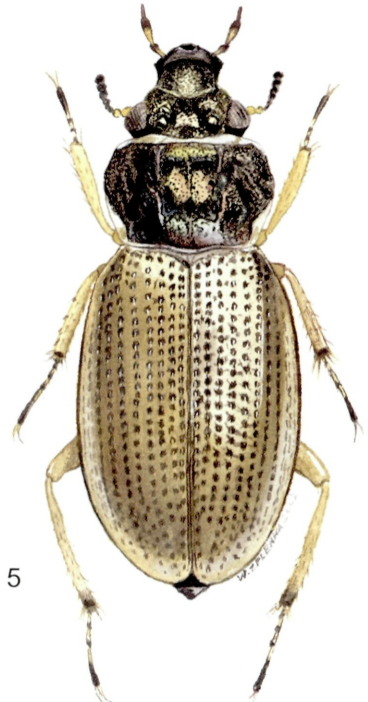


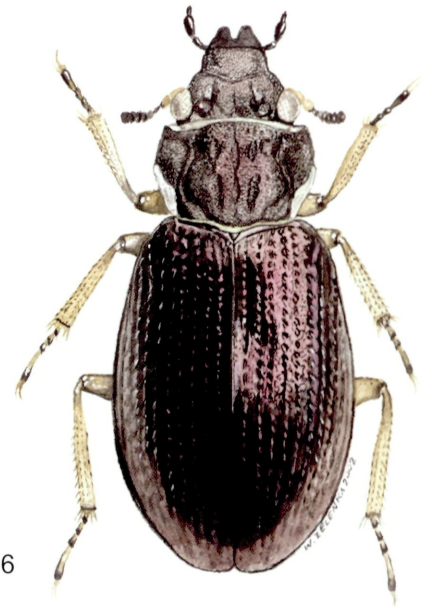


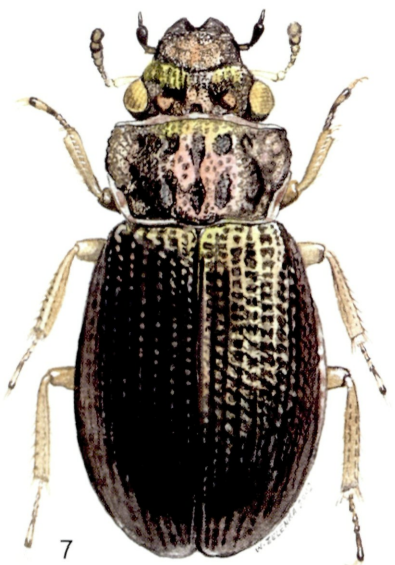


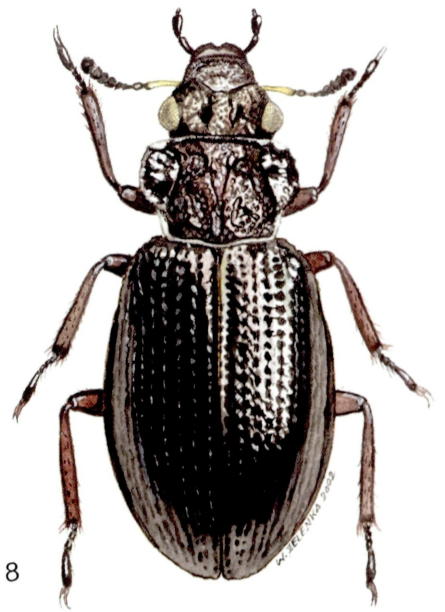


Figs. 1 - 4: Habitus of 1) *Ochthebius* (*Asiobates*) *flagellifer*, 2) *O.* (*A.*) *yunnanensis*, 3) *O.* (*Enicocerus*) *obesus*, 4) *O.* (s.str.) *satoi*. Size of illustrations not proportional; for actual size of specimens see description.

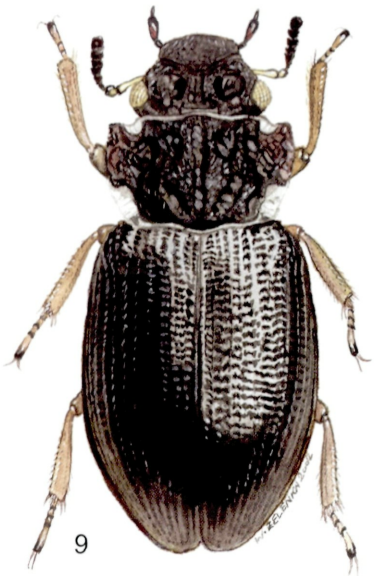


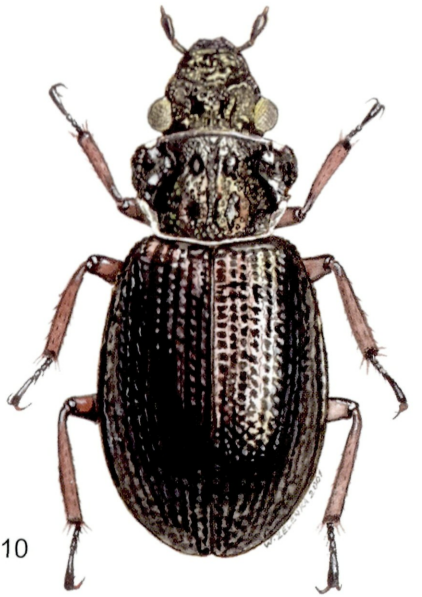


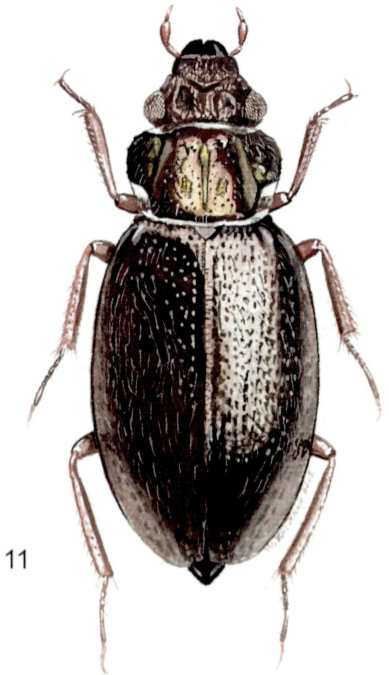


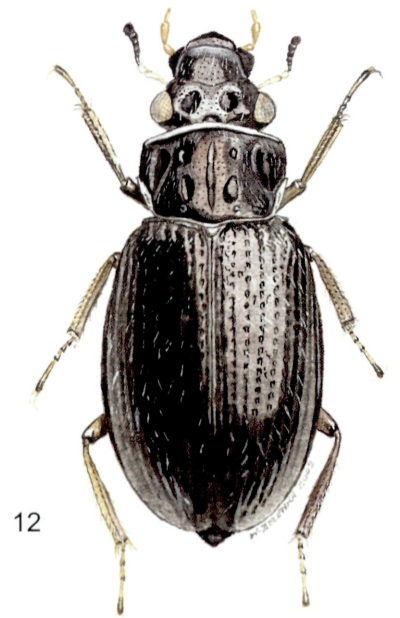


Figs. 5 - 8: Habitus of 5) *Ochthebius* (s.str.) *marinus*, 6) *O.* (s.str.) *himalayae*, 7) *O.* (s.str.) *wuzhishanensis*, 8) *O.* (s.str.) *andreasi*. Size of illustrations not proportional; for actual size of specimens see description.

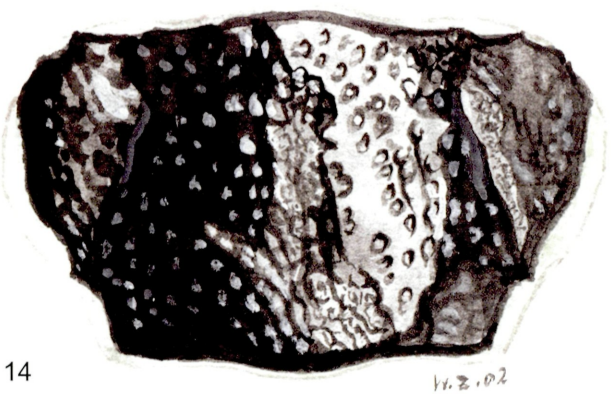




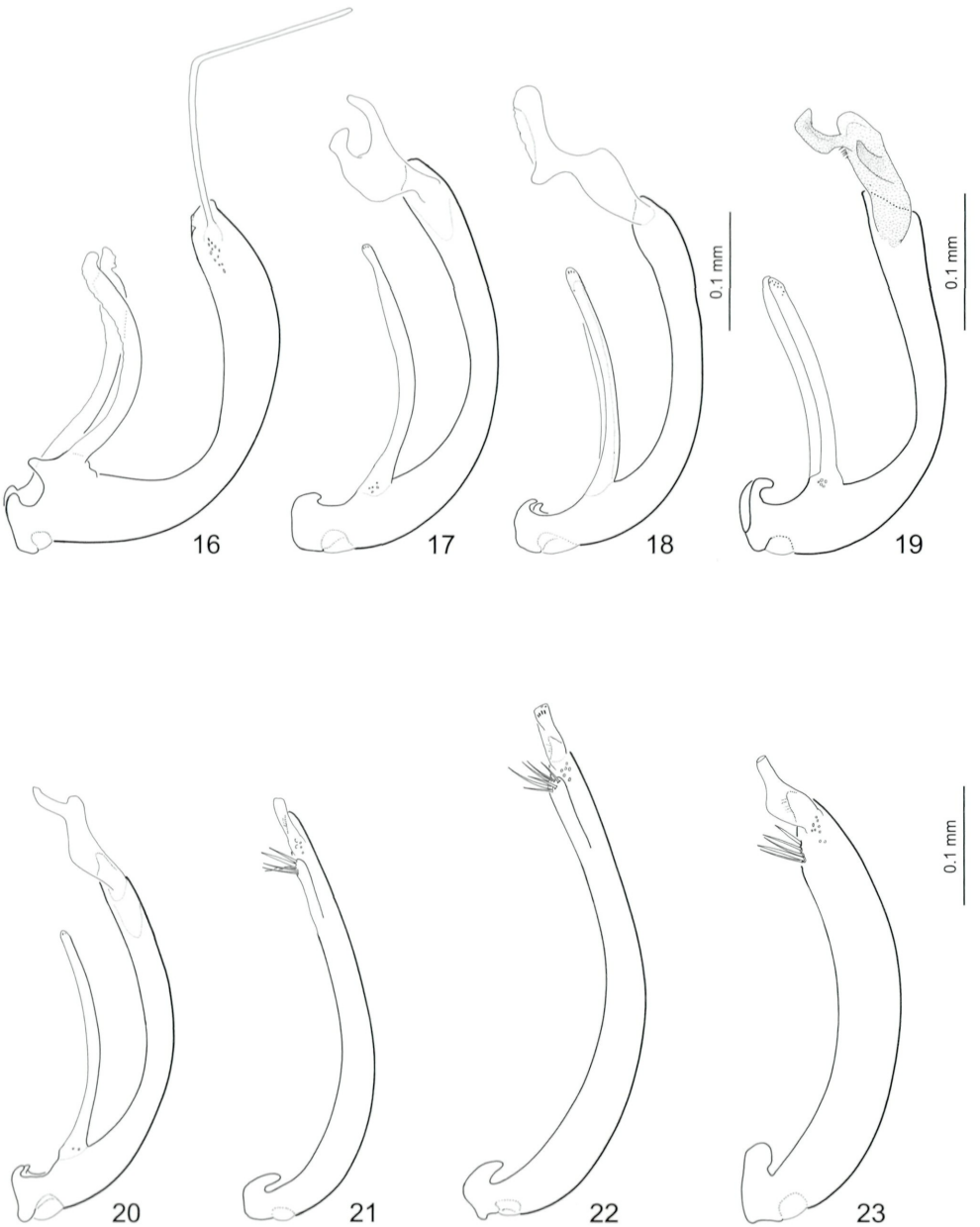




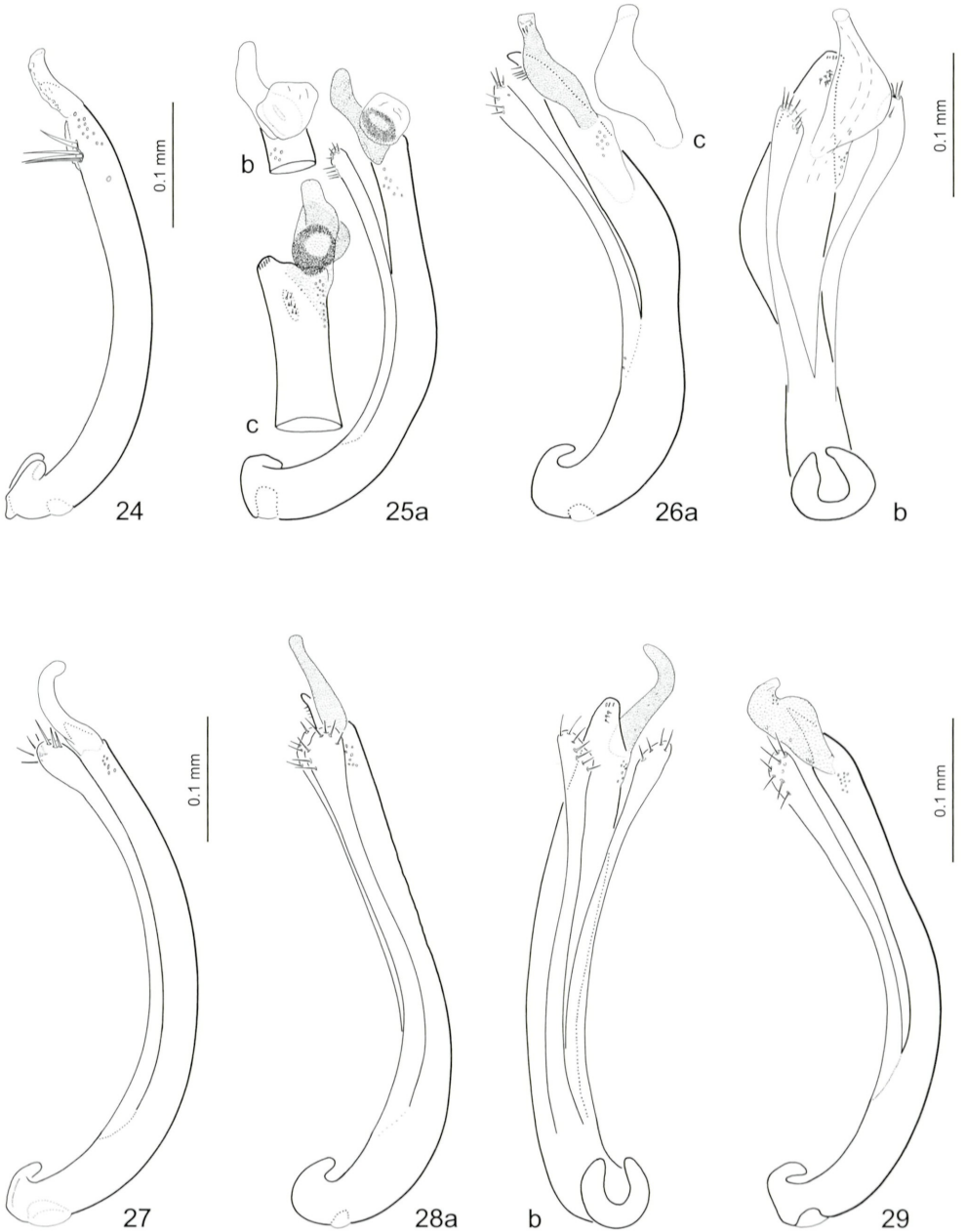
Figs. 9 - 12: Habitus of 9) *Ochthebius* (s.str.) *asiobatoides*, 10) *O.* (s.str.) *enicoceroides*, 11) *O.* (s.str.) *caucasicus*, 12) *O.* (s.str.) *opacipennis*. Size of illustrations not proportional; for actual size of specimens see description.



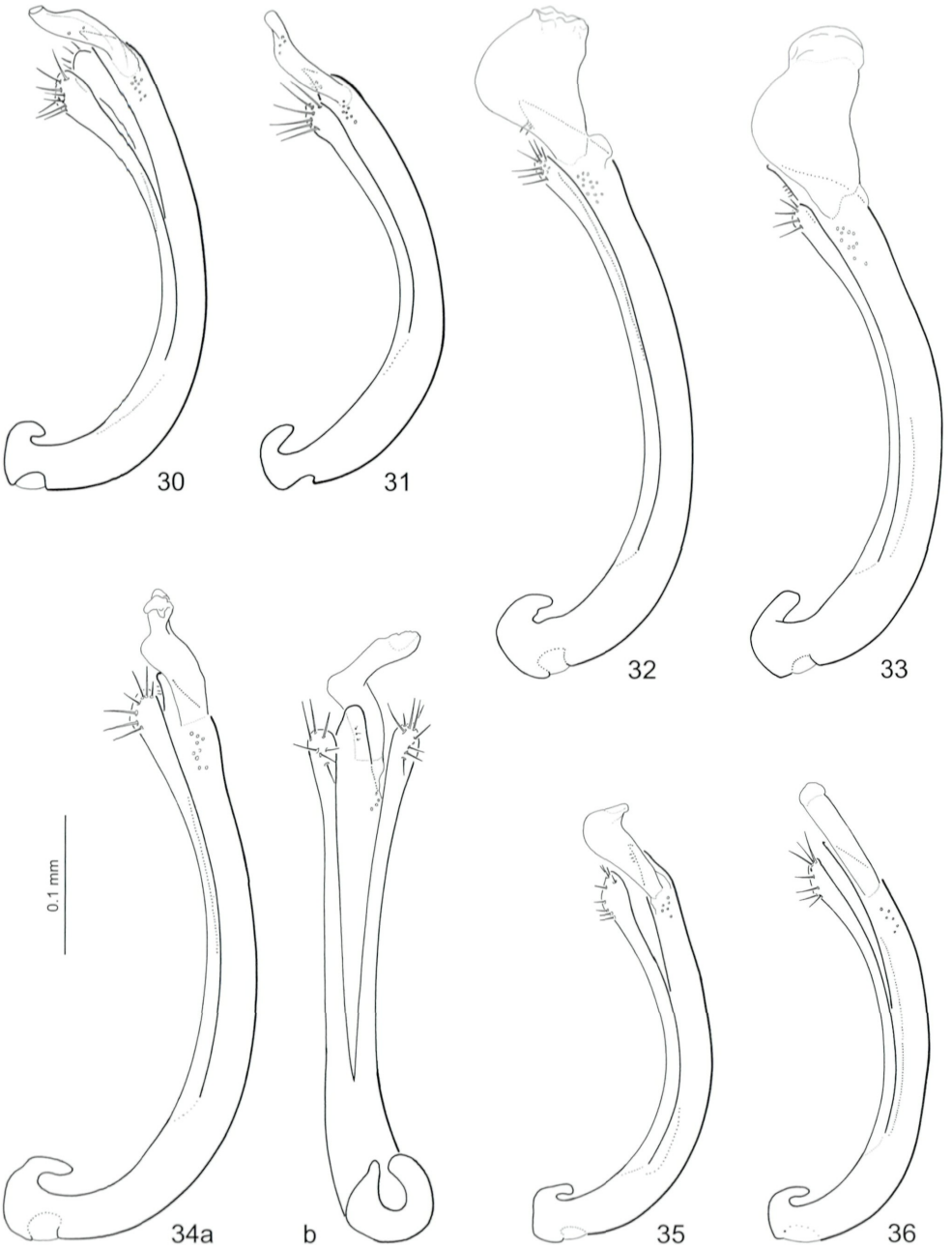
Figs. 13 - 15: Pronotum of 13) *Ochthebius* (*Enicocerus*) *nigrasperulus*, 14) *O.* (*E.*) *rotundatus*, 15) *O.* (s.str.) *asperatus*.



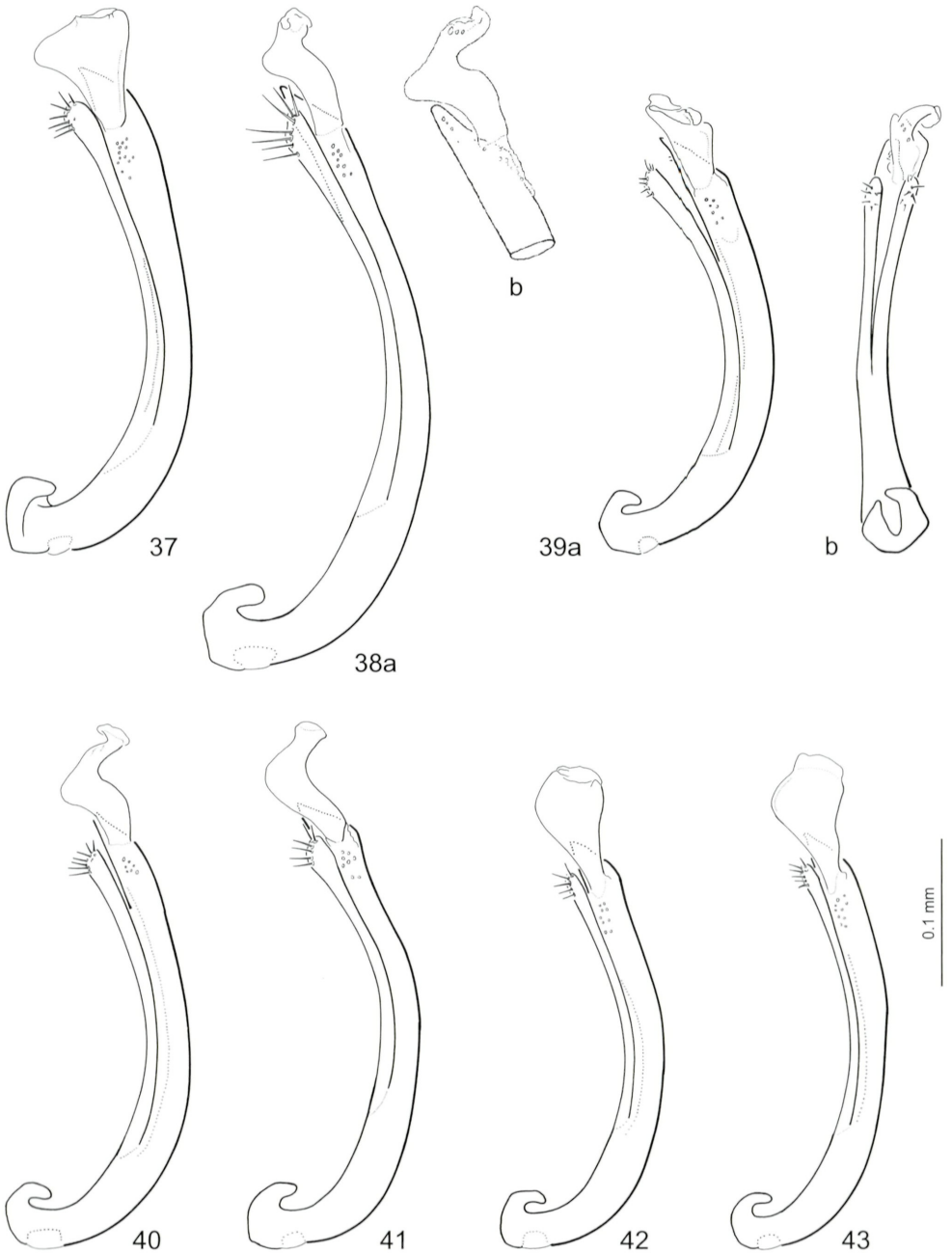
Figs. 16 - 23: Aedeagus, lateral view; 16) *Ochthebius* (*Asiobates*) *flagellifer*, 17) *O.* (*Asiobates*) *furcatus*, 18) *O.* (*Asiobates*) *unimaculatus*, 19) *O.* (*Asiobates*) *lurugosus* (Harbin) (after JÄCH 1990), 20) *O.* (*Asiobates*) *yunnanensis*, 21) *O.* (*Enicocerus*) *exiguus*, 22) *O.* (*Enicocerus*) *nigrasperulus*, 23) *O.* (*Enicocerus*) *obesus*.



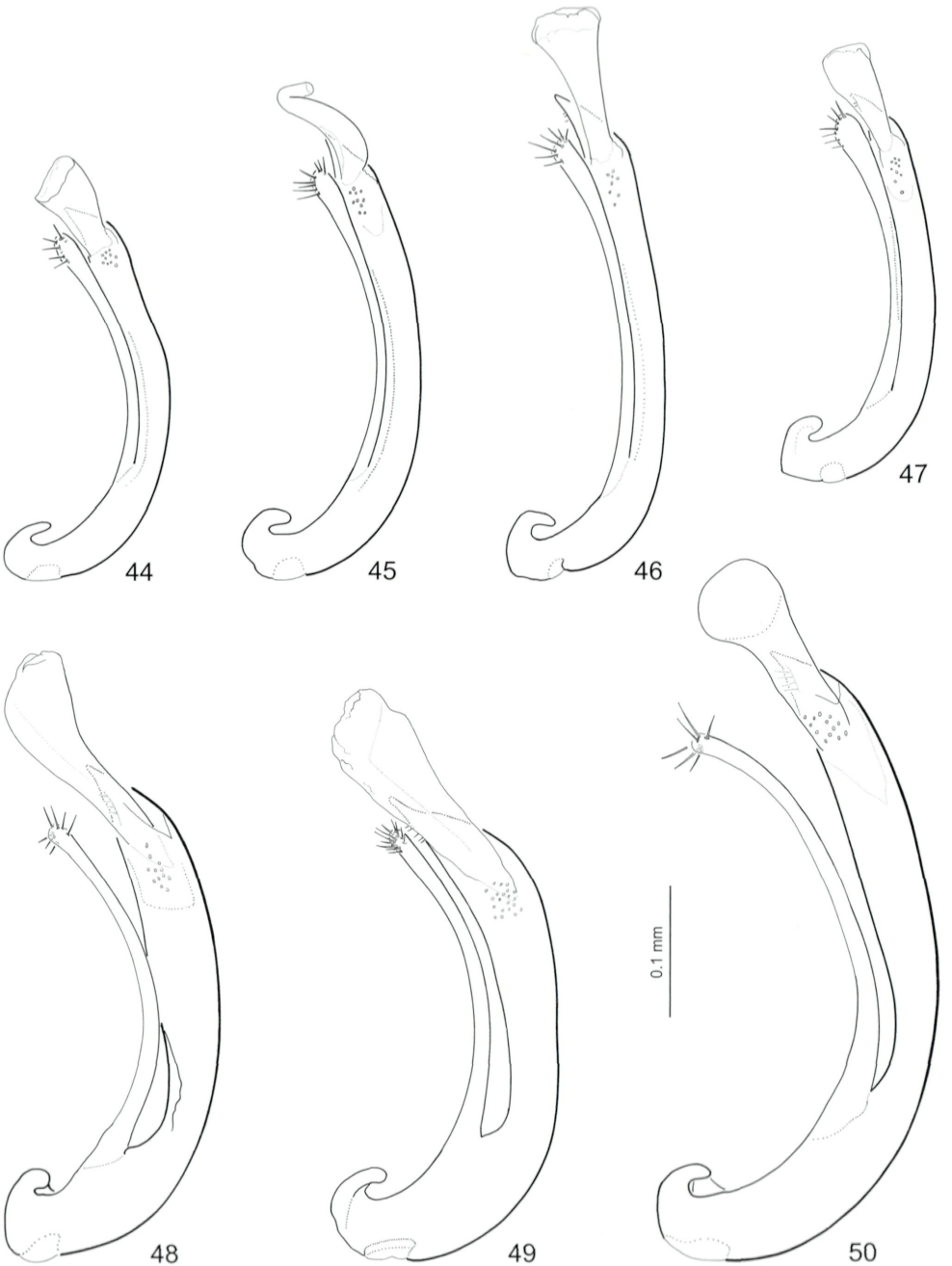
Figs. 24 - 29: Aedeagus; 24) *Ochthebius* (*Enicocerus*) *rotundatus*, 25) *O.* (s.str.) *satoi*, a) lateral view (Harbin), b) lateral view of apex (Mongolia), c) ventral view of apex (Japan) (after JÄCH 1991), 26) *O.* (s.str.) *angusi*, a) lateral view, b) ventral view, c) distal lobe in maximum outlines (after JÄCH 1992a), 27) *O.* (s.str.) *hainanensis*, 28) *O.* (s.str.) *marinus*, a) lateral view, b) ventral view (after JÄCH 1992a), 29) *O.* (s.str.) *himalayae* (after JÄCH 1989c).



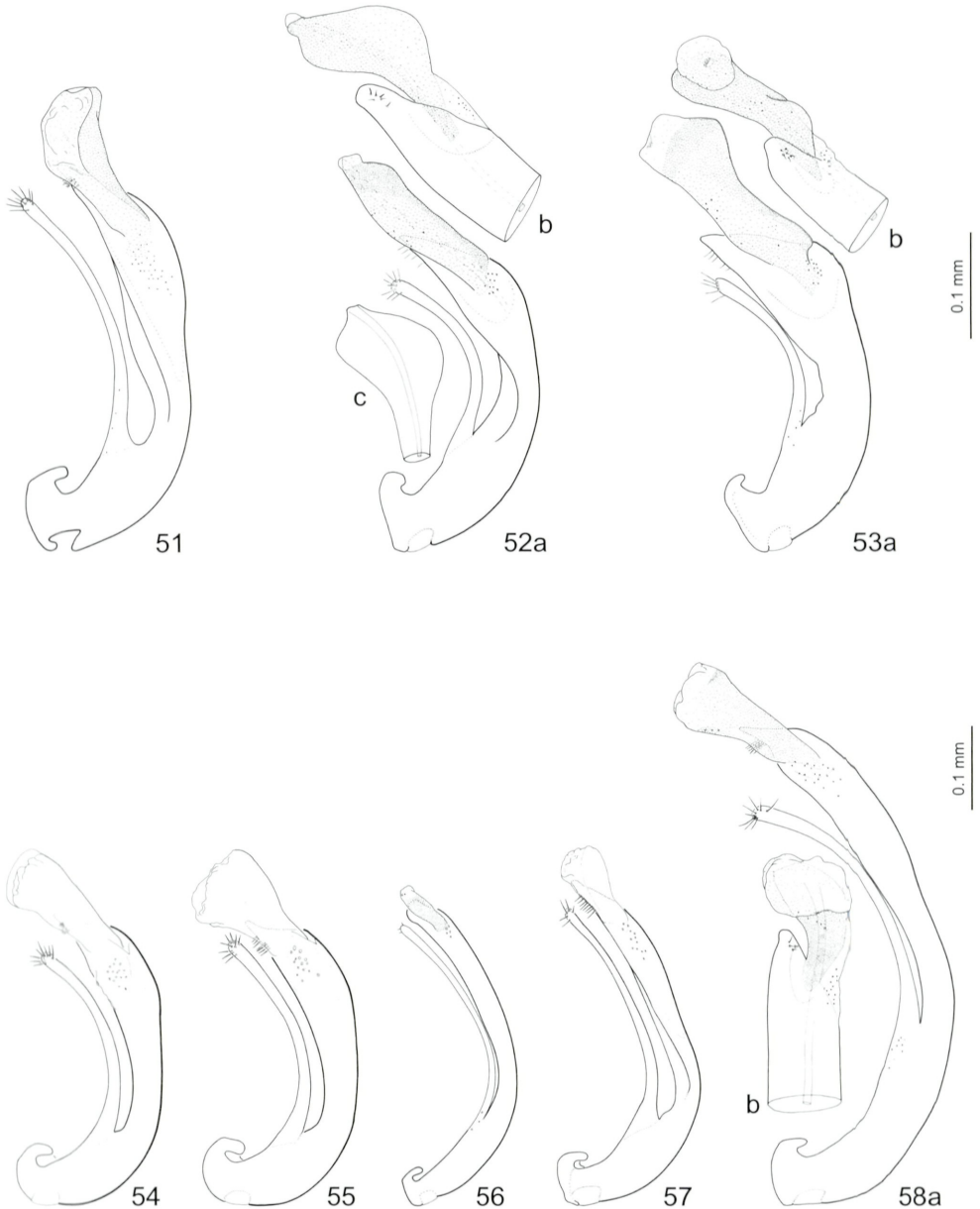
Figs. 30 - 36: Aedeagus; 30) *Ochthebius* (s.str.) *octofoveatus*, 31) *O.* (s.str.) *wuzhishanensis*, 32) *O.* (s.str.) *andreasi*, 33) *O.* (s.str.) *andreasoides*, 34) *O.* (s.str.) *caligatus*, a) lateral view, b) ventral view, 35) *O.* (s.str.) *asperatus*, 36) *O.* (s.str.) *asiobatoides*.



Figs. 37 - 43: Aedeagus; 37) *Ochthebius* (s.str.) *castellanus*, 38) *O.* (s.str.) *enicoceroides*, a) lateral view, b) ventral view of apex, 39) *O.* (s.str.) *jilanzhui*, a) lateral view, b) ventral view, 40) *O.* (s.str.) *fujianensis*, 41) *O.* (s.str.) *guangdongensis*, 42) *O.* (s.str.) *salebrosus* (CWBS loc. 284), 43) *O.* (s.str.) *salebrosus* (CWBS loc. 292).



Figs. 44 - 50: Aedeagus; 44) *Ochthebius* (s.str.) *sichuanensis*, 45) *O.* (s.str.) *stastnyi*, 46) *O.* (s.str.) *wangmiaoi*, 47) *O.* (s.str.) *yaanensis*, 48) *O.* (s.str.) *argentatus*, 49) *O.* (s.str.) *caucasicus*, 50) *O.* (s.str.) *gonggashanensis*.



Figs. 51 - 58: Aedeagus; 51) *Ochthebius* (s.str.) *klapperichi* (after JÄCH 1989a), 52) *O.* (s.str.) cf. *flexus* sensu JÄCH (1989a), a) lateral view, b) ventral view of apex, c) distal lobe in maximum outlines (after JÄCH 1989a), 53) *O.* (s.str.) *orientalis*, a) lateral view, b) ventral view of apex (after JÄCH 1989a), 54) *O.* (s.str.) *lobatus* (CWBS loc. 95), 55) *O.* (s.str.) *lobatus* (CWBS loc. 349), 56) *O.* (s.str.) *opacipennis* (after JÄCH 1992b), 57) *O.* (s.str) *verrucosus*, 58) *O.* (s.str.) *ovatus*, a) lateral view, b) ventral view of apex (after JÄCH 1989b).

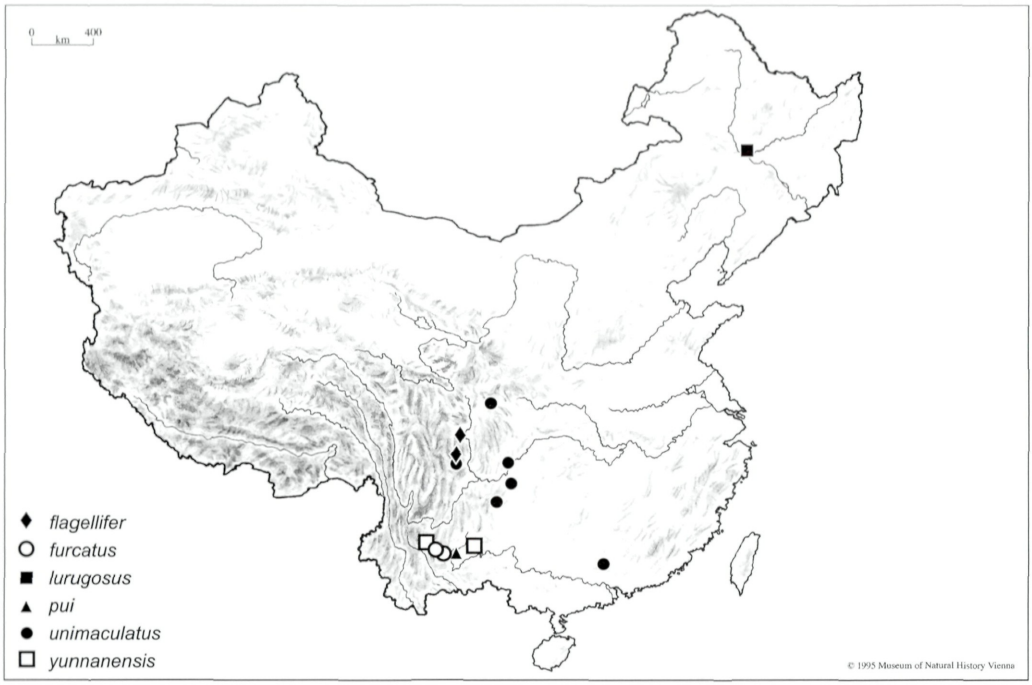


Fig. 59: Geographical distribution of the species of the subgenus *Asiobates* in Mainland China.

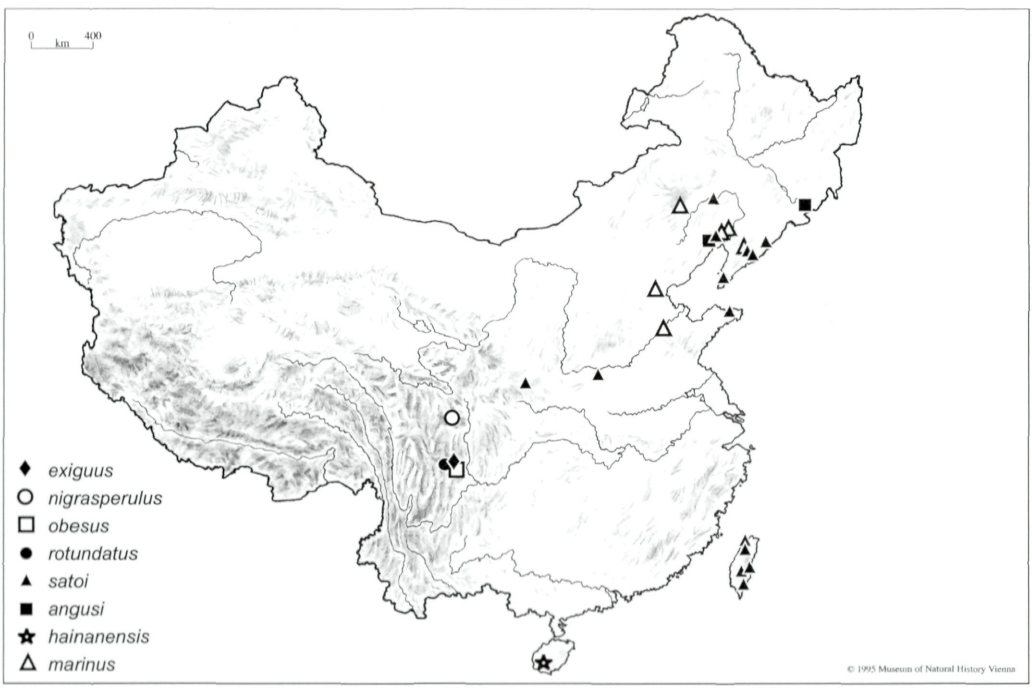


Fig. 60: Geographical distribution of the species of the subgenus *Enicocerus*, the *Ochthebius foveolatus* group, and the *O. marinus* group in Mainland China.

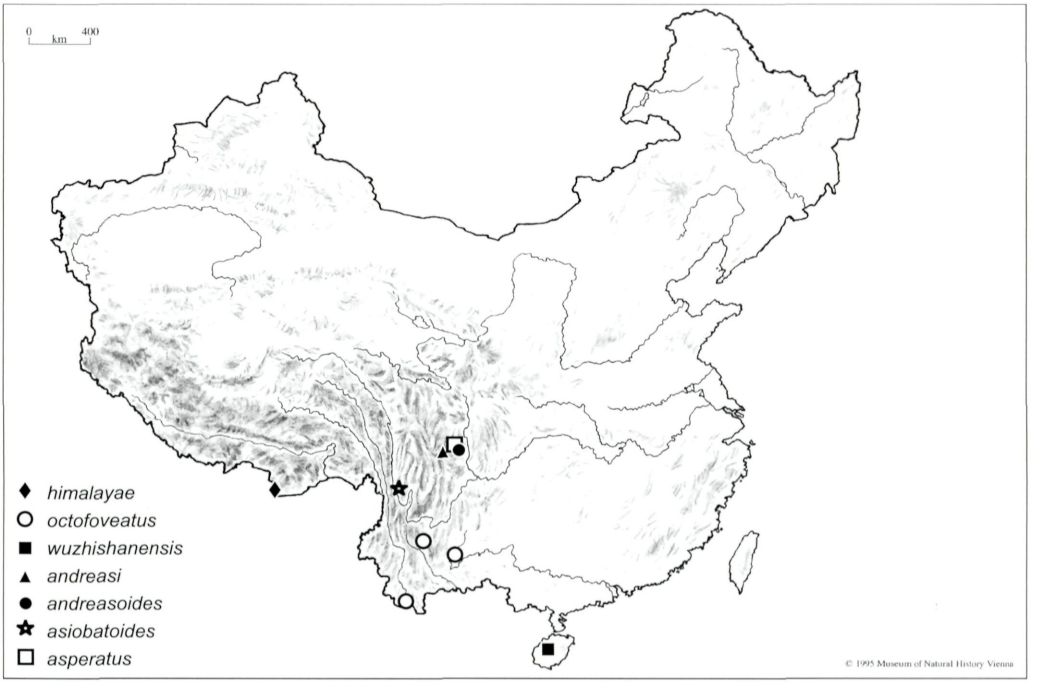


Fig. 61: Geographical distribution of the species of the *Ochthebius metallescens* group (*O. metallescens* subgroup, *O. rivalis* subgroup, and two species of the *O. strigosus* subgroup) in Mainland China.

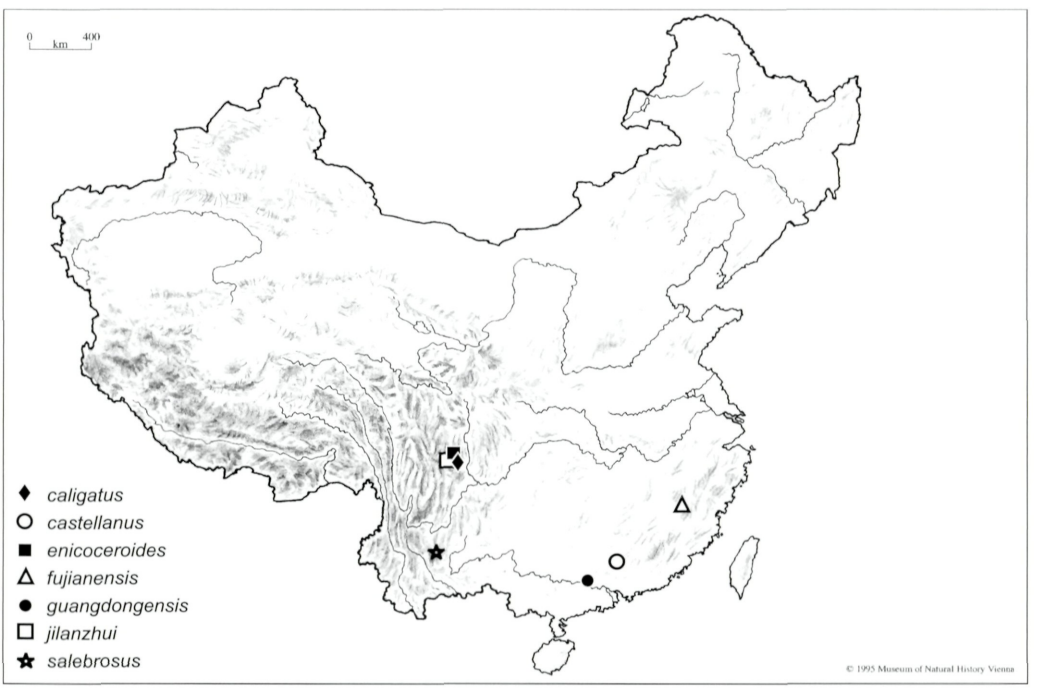


Fig. 62: Geographical distribution of seven species of the *Ochthebius metallescens* group (*O. strigosus* subgroup) in Mainland China.

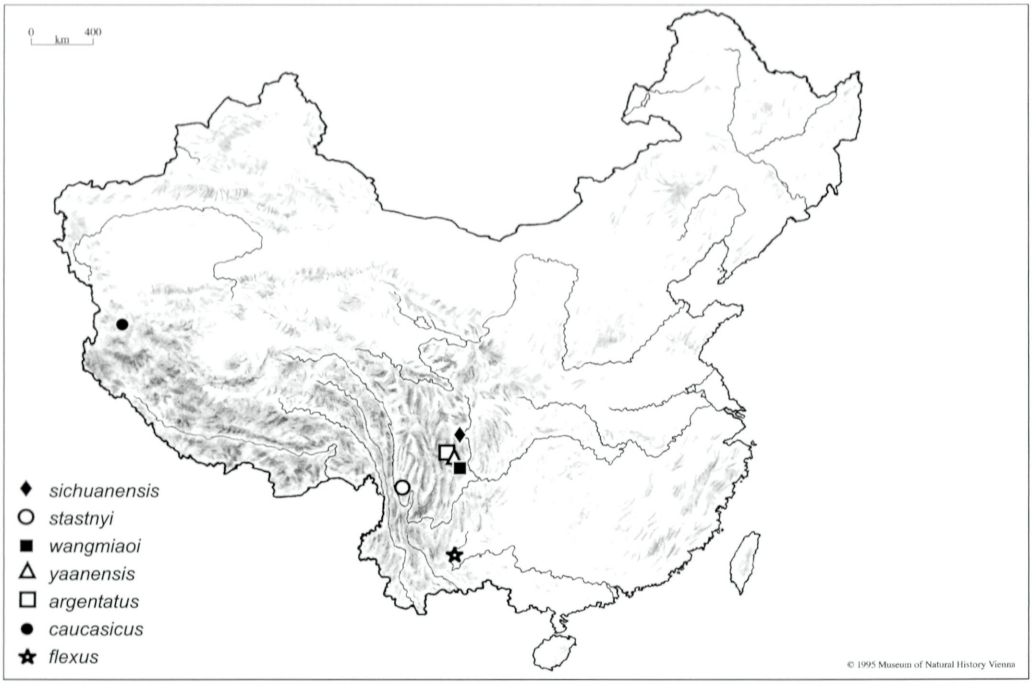


Fig. 63: Geographical distribution of four species of the *Ochthebius metallescens* group (*O. strigosus* subgroup) and three species of the *O. punctatus* group in Mainland China.

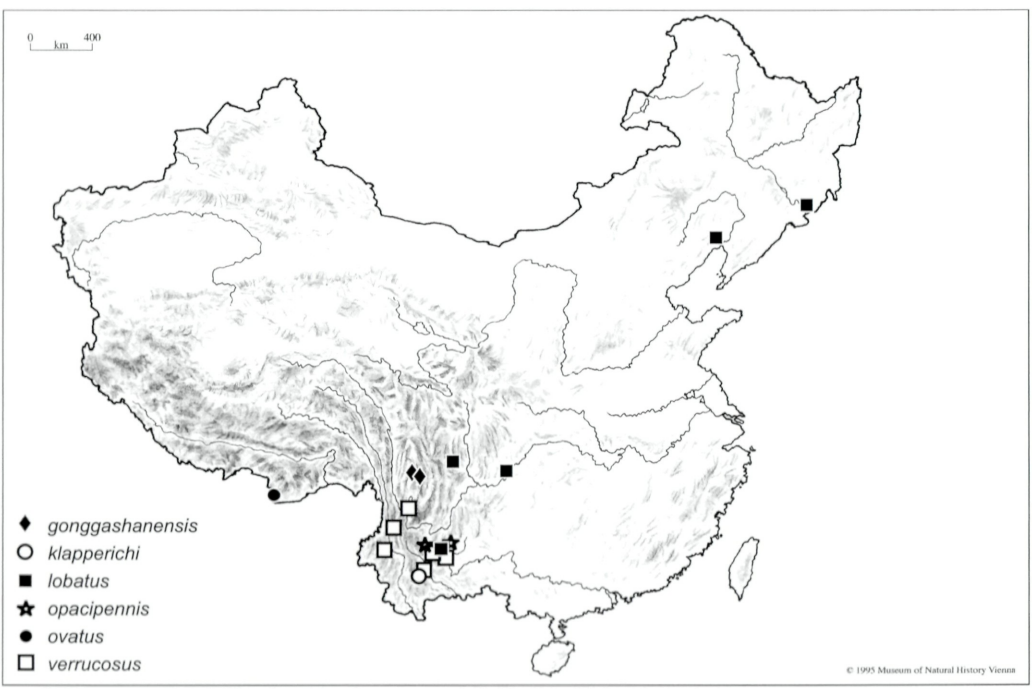


Fig. 64: Geographical distribution of six species of the *Ochthebius punctatus* group in Mainland China.

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