

NEW TAXA OF TRACHELOMONAS (EUGLENOPHYTA) FROM CHINA

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Abstract

1. *Trachelomonas volvocina* Ehrenberg var. *reticulata* Shi, var. nov. Fig.1:1

Lorica globosa; superficies loricae reticulis irregularibus instructa. Porus flagelli annulo inspissato carens, collo humili instructus. Loria diametro circa 16 μm .

Hubei: Wuhan, in piscina, Oct. 31, 1973, Li Yao-ying, Fig.1:1 (Iconotypus).

Differt a var. *volvocina* lorica reticulis irregularibus instructa.

2. *Trachelomonas acanthostoma* Stokes emend. Deflandre var. *spinulosa* Shi, var. nov. Fig.1:2—3

Lorica subglobosa, apice basique late rotunda; superficies loricae punctata dense, spinis tenuibus conicis sparsis instructa. Porus flagelli annulo inspissato et collo carens, spinis tenuibus conicis circum se instructus. Flagellum lorica 2—3-plo longius, Protoplastus circa 10 chromatophoris instructus; chromatophorum discoideum, irregulariter marginatum, pyrenoide vaginata instructum. Lorica 19—25 μm longa, 18—24 μm lata; spinae 1.5—2 μm longae.

Yunnan: Kunming, in stagno and Huatingsi, Maj. 11, 1977. Li Jing-yan, YN89063 (Typus).

Differt a var. *acanthostomate* lorica tenuispinis conicis sparsis instructa.

3. *Trachelomonas intermedia* Dangeard var. *spinulosa* Shi, var. nov. Fig.1:4—5

Lorica subglobosa vel late ellipsoidea, apice basique rotunda; superficies loricae dense punctata, apice basique spinis papilliformibus sparsis instructa. Porus flagelli annulo inspissato instructus, collo nullo. Protoplastus 4—5 chromatophoris instructus; chromatophorum discoideum, pyrenoide vaginata instructum. Lorica 18—20 μm longa, 15.5—18 μm lata.

Hubei: Jiangling Xian, in lacuna cum graminibus aquaticis numerosis, temperatura aquae 30°C, pH7, Maj. 12, 1983, Shi Zhi-xin, HP8491 (Typus).

Differt a var. *intermedia* lorica spinis papilliformibus sparsis instructa.

4. *Trachelomonas intermedia* Dangeard var. *laevis* Shi, var. nov. Fig.1:7

Lorica oblonga vel late ellipsoidea, apice basique truncato-rotunda; superficies loricae laevis. Porus flagelli collo carens, annulo inspissato instructus. Flagellum lorica circa 1.5-plo longius. Protoplastus 4 chromatophoris instructus; chromatophorum

discoideum, pyrenoide vaginata instructum. Lorica 23—26um longa, 19—23um lata.

Hubei: Wuhan, in piscina, temperatura aquae 14°C, Mar. 23, 1982, Shi Zhi-xin, Hp8441 (Typus).

Differt a var. *intermedia* superficie loricae laevi ornamento nullo.

5. *Trachelomonas maculata* Shi, sp. nov. Fig.1:6

Lorica anguste ellipsoidea, apice bacique rotunda; superficies loricae dense grosseque maculata. Porus flagelli collo carens, annulo inspissato instructus. Lorica 17—20um longa, 11—13um lata.

Xizang (Tibet): Markam Xian, in ripae aqua vadosa in Bencuo lacu, temperatura aquae 12°C, pH7, alt. 4350m, Jun. 14, 1967, He Tian-fu, TB76041 (Typus)

Nova species habitu cum *Tr. pulcherrima* Playf. congruens, sed differt a quo superficie loricae dense grosseque maculata, poro flagelli annulo inspissato instructo.

6. *Trachelomonas undulaticollum* Shi, sp. nov. Fig.3:1—2

Lorica obovoidea vel ellipsoidea, interdum subglobosa, apice late rotunda, basi anguste vel late rotunda; superficies loricae dense punctata. Porus flegelli sine annulo inspissato, collo recto undulato instructus; collum altum, tumidum in mediano, margine planiusculo et paullo everso. Flagellum lorica circa 2-plo longius. Protoplastus 8—10 chromatophorum instructus; chromatophorum discoideum, pyrenoide vaginata instructum; grana paramylorum parvi. Lorica cum collo 23—33um longa, 19—23um lata; collum 5—9um altum, 3—4um latum.

Hubei: Gong'an Xian, in puteo cum aqua fusca, temperatura aquae 29°C, pH8, Maj. 13, 1983, Shi Zhi-xin, HP8497 (Typus). Jiangsu: Nanjing, in stagno, Maj. 27, 1964, Shi Zhi-xin, NO, 168.

Nova species ad *Tr. planctonicam* Swir. et *Tr. lefevrei* Defl. accedens, sed a quibus habitu loricae, collo recto alto undulato, chromatophoro pyrenoide vaginata instructo distincta.

7. *Trachelomonas mirabilis* Swirenko var. *punctata* Shi, var. nov. Fig.1:8

Lorica ellipsoidea, apice basique anguste rotunda; superficies loricae dense punctata instructa. Porus flagelli sine annulo inspissato, collo recto instructus; margo colli extrosus radiatim tenuiter dentato, dentibus circa 1um longis. Lorica 30—34um longa, 18—20um lata.

Hubei: Wuhan, in stagno juxta Moshan collem, cum aqua lutea et membrana aquae rubicunda, Aug. 2, 1987, Shi Zhi-xin, HP8525 (Typus).

Differt a var. *mirabili* lorica minore, spinis carente, dentibus marginis colli brevioribus.

8. *Trachelomonas granulatopsis* Shi. sp. nov. Fig.2:1—4

Lorica oblonga val obovata, compressa, apice late rotunda, baci late vel anguste rotunda, ellipsoidea a aspectu verticali visa; superficies loricae scabrosa, tuberculis

magnitudine variis instructa. Porus flagelli conspicue parvus, 2—2.5um diametro, annulo inspissato et spinis tuberculiformibus circum se instructus. Flagellum lorica circa 2-plo longius. Protoplastus circa 15 discoideis chromatophoris instructus; chromatophorum pyrenoide vaginata instructum. Lorica 19—23um longa, 16—18um lata, 14—16um crassa.

Yunnan: Ninglang Xian, in stagno cum graminibus aquaticis numerosis, temperatura aquae 21℃, pH6, alt. 2650m, Aug. 10, 1981, Chen Yi-yu et al., HD81007(Typus).

Nova species and *Tr. granulata* Swir. emend. Defl. accedens, sed a qua poro flagelli conspicue parvo et cum annulo inspissato, spinis tuberculiformibus circum se instructo, chromatophoro pyrenoide vaginata instructo distincta.

9. *Trachelomonas granulopsis* Shi var. *exspinosa* Shi, var. nov. Fig.2:5—7

Differt a var. *granulopsi* lorica ellipsoidea, spinis tuberculiformibus circum porum flagelli carente, 22—24um longa, 18—19um lata, 15—16um crassa.

Hubei: Gong'an Xian, in fossa cum aqua atrovirenti, temperatura aquae 26.5℃, pH7.5, Maj, 13, 1983, Shi Zhi-xin, HP8494 (Typus).

10. *Trachelomonas clavata* Playfair var. *scaberula* Shi, var. nov. Fig.3:3

Lorica rectangularis vel oblonga, apice paulo angusta, baci truncata, utroque fere parallela; superficies loricae scabrosa rugosa, brevibus spinis circum extremum posticum instructa. Porus flagelli sine annulo inspissato, collo obliquo instructus; margo colli planiusculus. Lorica 53—60 um longa, 26—30um lata.

Zhejiang: Ningbo, in Dongqianhu lacu, temperatura aquae 20℃, Maj, 11, 1991, Shi Zhi-xin et al., CK91033 (Typus).

Differt a var. *clavata* lorica tetangulari vel oblonga, superficie scabrosa et postice breviter spinosis, collo obliquo; a var. *subarmata* Playf. superficie loricae scabrosa et haud punctata, collo obliquo.

11. *Trachelomonas superba* Swirenko emend. Deflandre var. *papillata* Shi, var. nov. Fig.3:4

Lorica ellipsoidea, apice bacique late rotunda; superficies loricae papillis tenuibus densis et spinis obtusis conicis instructa, longitudine spinarum varia. Porus flagelli sine collo, annulo inspissato instructus. Flagellum lorica circa 1.5-pol longius. Lorica 38—44um longa, 30—33um lata.

Hubei: Wuhan, in piscina. Sept. 16, 1975, Shi Zhi-xin, Fig.3:4 (Iconotypus).

Differt a var. *superba* superficie loricae papillis tenuibus densis et spinis obtusis conicis instructa.

Key words *Trachelomonas*, New taxa