

# 青海省似方双蚤一新亚种——黄南亚种\*

(蚤目:细蚤科)

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近几年来,分别从青海省东南部黄南藏族自治州三县采到一批双蚤属 (*Amphipsylla wagner*, 1909) 标本,经比较研究接近于似方双蚤 (*A. quadratoides* Liu, Isai & Wu, 1975), 我们认为应订为一个新亚种。指名亚种分布于青海东北部,以黄河为界限,形成天然屏障,从化隆县黄河北岸采到指名亚种为最南分布。新亚种分布于黄河以南,兹记述如下:

似方双蚤黄南亚种 (*Amphipsylla quadratoides huangnanensis*) 新亚种。(图1—5)

鉴别特征 本亚种的形态接近于似方双蚤指名亚种 (*A. quadratoides quadratoides* Liu, Tsai & Wu, 1975) 和似方双蚤中甸亚种 (*A. quadratoides zhongdianensis* Jie, Yang & Li, 1975), 三个亚种的主要区别见下表:

表1 似方双蚤三个亚种特征的鉴别

特征		似方双蚤黄南亚种 (新亚种)	似方双蚤指名亚种	似方双蚤中甸亚种
♂	可动突端与下位刺形鬃 处宽度比	7:4	7:5	7:6
	可动突端缘	平直,略斜向前	平直	弧形
	可动突基部长 度(后下角以下)	长	稍短	短
	IX腹板后臂末段形状	较狭长,端部削尖	较宽短,略呈纺锤形,端部圆	较狭长,端部钝
	阳茎钩突端	略斜,前、后角均较短,或后角略长	甚斜,前角成钩形,后角较长	窄,前角略圆,后角短而方
	阳茎钩突前缘凹度	浅而宽	深而窄	较深而宽
♀	VII腹板后缘	较直,上叶略突,凹陷浅或不明显	较直,有突出的上叶和明显的凹陷	斜行,上叶略突,无明显凹陷
地理分布		青海东南部	青海东北部	云南西北部

种的记述 头部:额突极微小,位于中点以下。眼较小,腹缘有小窝。前额鬃列有5(4)根鬃。第1后头鬃列只有1根鬃。下唇须达前足基节3/4强。胸部:前胸栉两侧共

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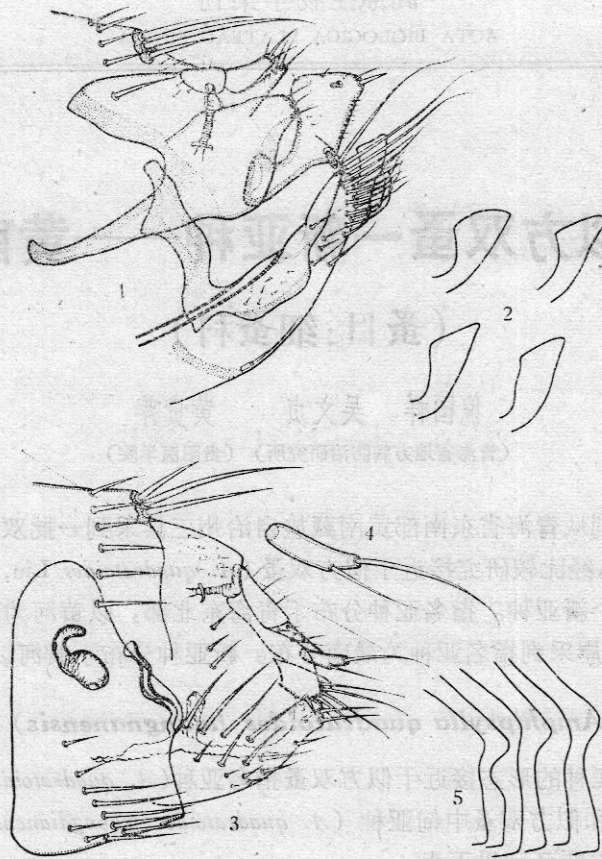


图 1—5 似方双蚤黄南亚种, 新亚种 (*Amplipsylla puadratoides huangnanensis*, sp. nov.)

1. ♂ 变形节, 正模 (modified segments of male, holotype) 2. ♂ 阳茎钩突的变异, 副模 (variation of crochet of aedeagus in male, paratype) 3. ♀ 变形节, 配模 (modified segments of female, allotype) 4. ♀ 肛锥 (anal stylet of female, allotype) 5. ♀ VII 腹板的变异 (variation of st. VII in female)

有 17—22 根栉刺, 背刺长约等于前胸背板, 中胸背板颈片两侧各有假鬃 2—4 根。后胸背板颈片近缘处两侧各具端小刺 2 (1) 根; 后侧片有鬃 3 列, 依次为 2、3、1。后足股节外侧有 4—5 根鬃, 侧内有 2—4 根鬃。后足第 2 跗节长鬃达到或略超过第 3 节端。腹部: 1—5 背板每侧端齿数依次为 1—3、1—2、1—2、1、0—1。2—7 背板气门下各有 1 根鬃。♀ 性: 4—6 腹板各具纵行骨化带, 尤以 6 腹板较强。

变形节: ♂, 8 腹板有一如小棒状的骨化脊, 其后方具微小的筒状结构, 顶端着生一长鬃; 该腹板的后缘及亚后缘有两列长鬃, 其中背方 3 根特别长, 腹方亚后缘的几根为弯曲鬃。抱器柄突末端钝, 不向上翘或明显上翘, 两种情况均有。可动突后端角有大小鬃各 1 根, 其 1 根为亚刺形鬃, 后端角稍前与后缘下角各具一色黑而端钝的棘鬃。♀, 7 腹板后缘多数标本均较直, 少数后上角略突, 大多无明显凹陷, 余见鉴别特征和图。

标本记录: 正模 ♂, 体长 2.1 毫米, 配模 ♀, 体长 2.2 毫米。副模 47 ♂♂, 体长 1.8—2.4 毫米; 39 ♀♀, 体长 2.6—3.2 毫米。标本于 1982 年 5 月 13 日—9 月 18 日采自河南蒙古族自治县托业马公社及宁蒙特公社。副模 1 ♂ 1 ♀ 自中华鼯鼠 (*Myospalax fontanieri*

Milne-Edwards), 正模 ♂: 采自间颅鼠兔 (*Ochotona cansus* Lyon), 配模和其余副模均采自根田鼠 (*Microtus oeconomus* Pallas) 及其巢穴(根田鼠为主要宿主)。另外有 1 ♂ 5 ♀, 采自同仁县和泽库县, 不作为副模。除 4 对副模标本存于贵阳医学院外, 其余标本均存于青海省地方病防治研究所二室。

### 参 考 文 献

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## A NEW SUBSPECIES OF *AMPHIPSYLLA QUADRATOIDES* FROM QINGHAI PROVINCE

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*Amphipsylla quadratoides huangnanensis*. subsp. nov.

Table 1 The diagnosis of three subspecies of *A. quadratoides* Liu, Tsai et Wu

Character	Subspecies	<i>A. quadratoides huangnanensis</i> (subsp. n.)	<i>A. q. quadratoides</i>	<i>A. quadratoides zhongdianensis</i>
♂	The ratio of width of the end of movable process and lower spiniform bristle	7:4	7:5	7:6
	The end margin of the movable process	level straight slight oblique forward	level straight	arc
	The base length of the movable process (below of hind lower angle)	long	slight short	short
	The tip form of the posterior arm of sternum 9	rather long and narrow, sharp end	quite width short, slight spindle, round end	rather long and narrow, blunt end
	The end of crochet process of penis	slight oblique the angle of anterior and posterior are shorter or posterior angle slight long	more oblique anterior angle in crochet, posterior angle longer	narrow, anterior angle slight round, posterior angle short but square
	The fore margin concavity of crochet process of penis	shallow and wide	deep and narrow	rather deep and wide
♀	The posterior margin of sternum 7	rather straight, upper lobe slight process, sinus shallow or unevident	rather straight, the protruding of upper lobe and evidente sinus	oblique, upper lobe slight process, unevident sinus
The geographical distribution		Southeast of Qinghai province	Northeast of Qinghai province	Northwest of Yunnan province

Dignosis: The subspecies is closely related to *Amphipsylla quadratoides quadratoides* Liu, Tsai & Wu, 1975 from Qinghai and *Amphipsylla quadratoides zhongdianensis* Jie, Yang & Li, 1979 from Yunnan, but separable by the following characters (Table 1).

Holotype ♂, body length 2.1 mm; allotype ♀, body length 2.2 mm; 47♂♂ paratypes (1.8—2.4 mm) and 39♀ paratypes (2.6—3.2 mm). All specimens were collected in Henan Mongolzu Zizhixian, Huangnan Zangzu Zizhizhou, Qinghai in May, 1982 from *Ochotona cansus*, *Myospalax fontanieri* and *Microtus oeconomus* (Holotype from *Ochotona cansus*; 1♂, 1♀ paratypes from *Myospalax fontanieri*; allotype ♀ and other paratypes from *Microtus oeconomus*.)

All types are deposited in Qinghai Provincial Institute of Endemic Disease Control except 4 pairs of paratypes are deposited in Quiyang Medical College.

A NEW SUBSPECIES OF AMPHIPSYLLA QUADRATOIDES  
FROM QINGHAI PROVINCE

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Table 1. The diagnosis of three subspecies of *A. quadratoides* Liu, Tsai & Wu

Character	Subspecies <i>A. quadratoides</i> Huangnan (subsp. n.)	
	<i>A. p. quadratoides</i>	<i>A. q. quadratoides</i>
The geographical distribution	Henan province	Southeast of Qinghai province
The posterior margin of sternum	The posterior margin of sternum is shallow and acute	rather straight, the posterior margin of upper lobes and sternum is shallow and acute
The form of coxisternal process of femur	The form of coxisternal process of femur is shallow and wide	deep and narrow
The end of coxisternal process of femur	The end of coxisternal process of femur is long	shorter, angle longer, posterior angle longer, anterior angle short and acute
The form of the posterior end of sternum	The form of the posterior end of sternum is rather long and acute	shorter, angle longer, posterior angle longer, anterior angle short and acute
The base length of the movable process (below of hind tarsal)	long	short
The movable process of the hind tarsal	The end margin of the movable process of the hind tarsal is oblique towards	level straight
The ratio of width of the end of movable process and lower epipharyngeal plate	1:1	1:1.5