Pholcus zichyi Kulczyński, 1901

Kulczyński, M. V. 1901. Arachnoidea. In Horvath, G. (ed.), Zoologische Ergebnisse der dritten asiatischen Forschungsreise des Grafen Eugen Zichy. Budapest, 2: 311-369.

p. 326

13. Pholcus Zichyi *n. sp.*

(Tab. XII. fig. 3—4.)

Ph. cephalothorace aeque longo ac lato, cinereo, in parte thoracicâ maculâ magnâ umbrinâ stellatâ, anguste dimidiatâ ornato, parte cephalicâ sulco profundo semicirculari distinctâ, clypeo insigniter proclivi, duplo quam area oculorum longiore; serie anticâ oculorum rectâ oculis anticis lateralibus paullo maioribus quam postici, parte thoracicâ dense granulatâ opacâ, mandibulis clypeo brevioribus, sterno fuligineo albo maculato, pedibus melleo-albidis, femoribus fuligineo punctatis, ut tibiae prope apicem obsolete nigricanti annulatis, patellis fuligineo maculatis; abdomine elongato, cinereo, supra vittâ umbrinâ inaequali, subter vittâ latâ nigricanti ornato, epigynae lamellâ corneâ non duplo latiore quam longiore. Femina $3^3/_4$ m/m longa.

Femina.

Cephalothorax 1·1 m/m. longus et aeque fere latus, parte cephalicâ sulco fere semicirculari profundo definitâ, impressione

mediâ et impressionibus radiantibus partis thoracicae indistinctis, dorso partis thoracicae a latere viso sat fortiter convexo, ante —. prope partem cephalicam — paullulo descendenti, dorso partis cephalicae primo sat fortiter, tum oculos versus parum adscendenti, clypeo sub oculis impresso, ceterum insigniter proclivi et paullulum convexo; cephalothoracis, qui opacus est, pars thoracica fere tota et pars cephalica supra secundum medium subtiliter reticulatae sive dense granulatae, clypeus dense subtilissime transverse reticulatus; dorsum partis cephalicae sat dense, pars thoracica vero et clypei pars superior disperse pilosae videntur (exemplum nostrum detritum est). Area *oculorum* 0·5 lata; series posterior oculorum desuper visa fortiter recurvata, anterior paene recta (paullulo recurvata); oculi posteriores subaequales, medii inter se fere sescuplâ diametro, a lateralibus ca $^1/_8$ diametri, a lateralibus anticis spatio minore etiam, a mediis anticis fere radio remoti; oculi laterales bini subcontingentes; series oculorum anterior a fronte visa recta, mediorum diameter paullo maior quam radius lateralium, qui oculis posticis paullo maiores sunt; oculi medii a lateralibus fere radio suo et fere duplo longius quam inter se remoti. Area oculorum mediorum paullo longior quam ante latior, pone paullo plus duplo latior quam ante. Clypeus duplo longior quam area oculorum longa et paullo humilior quam area haec lata est. *Mandibulae* paullo longiores quam $^3/_4$ clypei. *Sternum* dense subtilissime reticulatum, opacum, disperse pilosum, tuberibus caret. *Palporum* pars tibialis ca. 0·20 longa, cylindrata, tarsalis 0·23 longa, gracilis, basi paullulo tenuior quam tibialis, leviter conica. *Pedes* inermes, I. 20·1, II. 14·4, III. 11·0, IV. 14·9 longi. *Abdomen* 2·7 longum, 1·6 latum; desuper visum elongatum ellipticum, ca. 1·4 altum, dorso paullulum arcuato, posteriora versus paullulum adscendenti, supra mamillas fere ad perpendiculum truncatum, angulo superiore tamen late rotundato. *Epigyne* (fig. 3.), una cum partibus epigastrii vicinis, modice convexa, e laminâ constat corneâ, 0·5 latâ, 0·3 longâ, triangulari, margine postico sat fortiter rotundato, lateribus modice concavis, in parte anticâ tuberculo ornatâ rotundato, deplanato, mediocriter duro; in transversum lamina haec sat fortiter convexa est, foveâ magnâ ornatur, ita, ut a latere adspecta magnam partem deplanata videatur,

Cephalothorax (fig. 4) cinereus, pars cephalica pone maculâ parvâ et obsoletâ obscuriore ornata; partem thoracicam, marginibus latis lateralibus et postico exceptis, macula occupat umbrina magna, valde inaequalis; quae macula e vittis constat duabus longitudinalibus et ex radiis utrimque tribus; vitae longitudinales inter se lineâ pallidâ angustâ distinguuntur, ante sulco cephalico definiuntur, in parte anteriore dilatatae, in posteriore angustiores et retro et foras directae sunt; radii bini posteriores basi angustâ cum vittâ respondenti coniuncti, foras fortiter dilatati, posterior anteriore latior; radii antici vero minores, a vittis abrupti. Oculi antici medii in maculâ nigrâ communi siti, laterales anguste colore umbrino cincti; clypeus maculâ magnâ umbrinâ, infra dimidiatâ ornatus. Mandibulae fulvo-albidae, basi et in latere exteriore superiore et in latere interiore umbrinae. Maxillae melleo-albidae, in margine exteriore apicem versus colore umbrino pictae; labium basi fuligineum, apice albidum; sternum fuligineum, margine antico in utroque latere et maculâ oblongâ pone labium sitâ et maculis oblongis radiantibus utrimque tribus melleo-albidis. Palpi fuliginei, parte patellari fere totâ et parte tibiali apice melleo-albidis. Pedes melleo-albidi, coxae et trochanteres fuligineo marginati, femora fuligineo punctata, prope apicem obsolete nigricanti annulata, apice purius albida; patellae in latere postico fuligineo-maculatae; tibiae summâ basi anguste et evidentius et prope apicem obsolete nigricanti annulatae, apice albidae; summus apex metatarsorum colore fuligineo tinctus. *Abdomen* cinereum, colorem violaceum paullulo sentiens, cepha-

lothorace obscurius, in dorsi parte libratâ ornatum vittâ umbrinâ, bis constrictâ, pone incisâ, quasi e paribus tribus macularum obliquarum, inter se confusarum compositâ; pars dorsi postica (directa) angulis tribus umbrinis picta, in lateribus diffusis et obsoletis et inter se confusis; venter vittâ latâ nigricanti ornatus; pars eius postica brevis, lineâ pallidâ recurvatâ distincta, quam reliqua vitta paullo obscurior; mamillae fuligineae. Stigmata ex parte fuliginea. Lamina epigynae cornea rufofusca, epigastrium ad eam utrimque fuligineum et cephalothoraci propius pari macularum parvarum, inter se remotarum, fuliginearum, pictum.

Mas ignotus.

China: Tshan-pin-cho.

Pl. 12

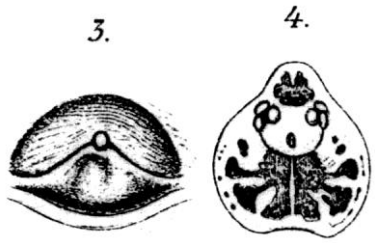


Fig. 3. *Pholcus Zichyi n. sp.*, epigyne. (× 29.)
Fig. 4. Eiusdem speciei cephalothorax. (× 16.)

Schenkel, E. 1963. Ostasiatische Spinnen aus dem Muséum d'Histoire naturelle de Paris. Mém. Mus. natn. Hist. nat. Paris (A, Zool.) 24: 1-481.

p. 101

Pholcus crypticolens Bösenberg u. Strand.

♀: Cephalothorax 1,1 mm lang und ebenso breit; Stirn 0,5 mm breit; hintere Augenreihe 0,5, vordere 0,45 mm. Abdomen 2,8 mm lang, 1,8 breit. Die hintern Mittel- und die vordern Seitenaugen sind gleich gross; die hintern Seitenaugen sind ebenso lang aber etwas schmäler; die vordern Mittelaugen sind etwa halb so breit als die seitlichen; wenn man nur die eigentlichen Augen ohne die schmalen schwarzen Höfe berücksichtigt, so stossen die Augen der seitlichen Dreiergruppen nicht völlig zusammen; der Abstand zwischen den Seitenaugen einer Seite ist = 1/8, zwischen vorderen Mittel- und Seitenaugen = 1/6 und zwischen vordern Seiten- und hintern Mittelaugen = 1/3 des längeren Durchmessers eines vordern Seiten- oder hintern Mittelauges; der Zwischenraum der hintern Mittelaugen ist = 1 1/4 solcher Durchmesser, ein seitliches vorderes Intervall = 2/3, das mittlere = 1/4.

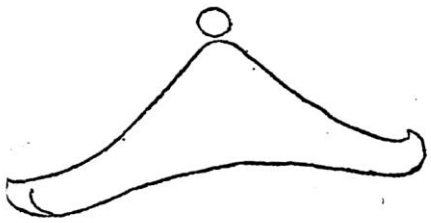


FIG. 58. — *Pholcus crypticolens* Bbg. u. Std.
♀. Epigyne.

Die Epigyne ist derjenigen von *Ph. phalangioides* (Füssl.) ähnlich; das verhornte Dreieck ist 3 ½ mal so breit als lang; alle 3 Seiten sind etwas concav, die seitlichen Partien darum schlank und gegen das Ende schwach nach vorn gebogen.

Auf dem Thorax erstreckt sich ein brauner Fleck vom Ende des Kopfes bis nahe an den Hinterrand, der nach hinten etwas verschmälert ist und durch eine feine helle Mittellinie in 2 schmale, vorn und hinten abgerundete Keile zerteilt wird.

Fund: Tal des Flusses Dschanba im Amdo, Kansu, 2. IV 85: 1 ♀.

Paik, K. Y. 1978. Araneae. Illustated Flora & Fauna of Korea 21: 1-548.

27. *Pholcus crypticolens* BOES. et STR., 1906

산유령거미 [Pl. 13, 14 Fig. 27 ⓐ ♀, 상주, 15/VIII, 1956. I. H. Son
ⓑ ♂, 팔공산, 10/VIII, 1977. K. Y. Paik]

암컷의 배갑은 황백색 바탕에 암황갈색의 복잡한 무늬가 가슴의 등면을 거의 차지하고 있는데 이것은 정중선을 달리는 선에 의하여 좌우로 갈라져 있다. 이마에도 1쌍의 세로로 달리는 암황갈색 줄 무늬가 있다.

위턱은 암황갈색이고 아래턱도 암황갈색에 끝만 희다. 아랫입술은 암황갈색이며 가슴판에 유착하고 그 사이에 홈줄이 없다. 가슴판은 암황갈색 바탕에 대륙유령거미에서 보는 것과 비슷한 황갈색 무늬를 가진다.

다리는 연한 황갈색이고 대륙유령거미처럼 넓적다리마디 끝 부분과 무릎마디, 종아리마디의 양 끝 등에 암황갈색의 고리 무늬를 가지는 이외에 넓적다리마디와 종아리마디는 암황갈색 점 무늬로 얼룩져 있다. 다리의 센털은 집유령거미처럼 길고 현저하지 않다.

배는 약간 긴 타원형을 하고 황갈색 바탕에 등면 정중선을 달리는 암황갈색 무늬를 가지고 있다. 배 아랫면은 위바깥홈에서 실젖 조금 앞에 이르는 나비가 넓은 암황갈색 띠를 가지는 동시에 실젖을 둘러싸고 있는 암황갈색의 고리띠를 가진다. 사이젖은 없고, 실젖은 암황갈색이다.

암컷의 외부 생식기는 적갈색이고, 밑변의 길이와 높이의 비는 22 : 12로 높이는 밑변 길이의 약 54% 가 되어 다른 2종보다 매우 높다.

수컷은 대체로 암컷과 같고 눈두덩도 암컷과 다름 없다.

몸길이 : 우——몸 길이 3.68 mm, 배갑 길이 1.10 mm, 배갑 나비 1.10 mm, 배 길이 2.50 mm, 배 나비 1.23 mm ; 숫——몸 길이 4.26 mm, 배갑 길이 1.23 mm, 배갑 나비 1.15 mm, 배 길이 2.95 mm, 배 나비 1.10 mm

채집지 : 광릉 • 석항피난굴 • 법주사 • 소천 • 영양 • 상주 • 월매리 • 불영사 • 통고산 • 가창 ; 감악산〈남궁 준 • 윤 경일, 1975〉 • 춘천 • 삼악산 • 장락산〈남궁 준 • 백 남극, 1973〉 • 제암 풍혈〈최 기철 • 남궁 준, 1966〉 • 고씨굴 • 초당굴 • 성류굴 • 고수굴 • 용담굴〈남궁 준 • 전 상린 • 백 남극, 1975〉 • 치악산〈남궁 준 • 윤 경일, 1976〉 • 충주〈남궁 준, 1964〉 • 구천동 • 백련사〈남궁 준, 1972〉 • 지리산〈백 운하 • 우 국순, 1970; 남궁 준 • 백 운하 • 윤 경일, 1972〉 • 괘내기굴〈한국 동굴 협회, 1970〉 • 제주시 아라이동〈백 갑용, 1♀, 2/VIII, 1969〉 • 안덕 계곡〈백 갑용, 1♀, 30/VII, 1969〉

분포 : 한국 • 일본(쓰시마 섬, 오키나와) • 중국 • 타이완

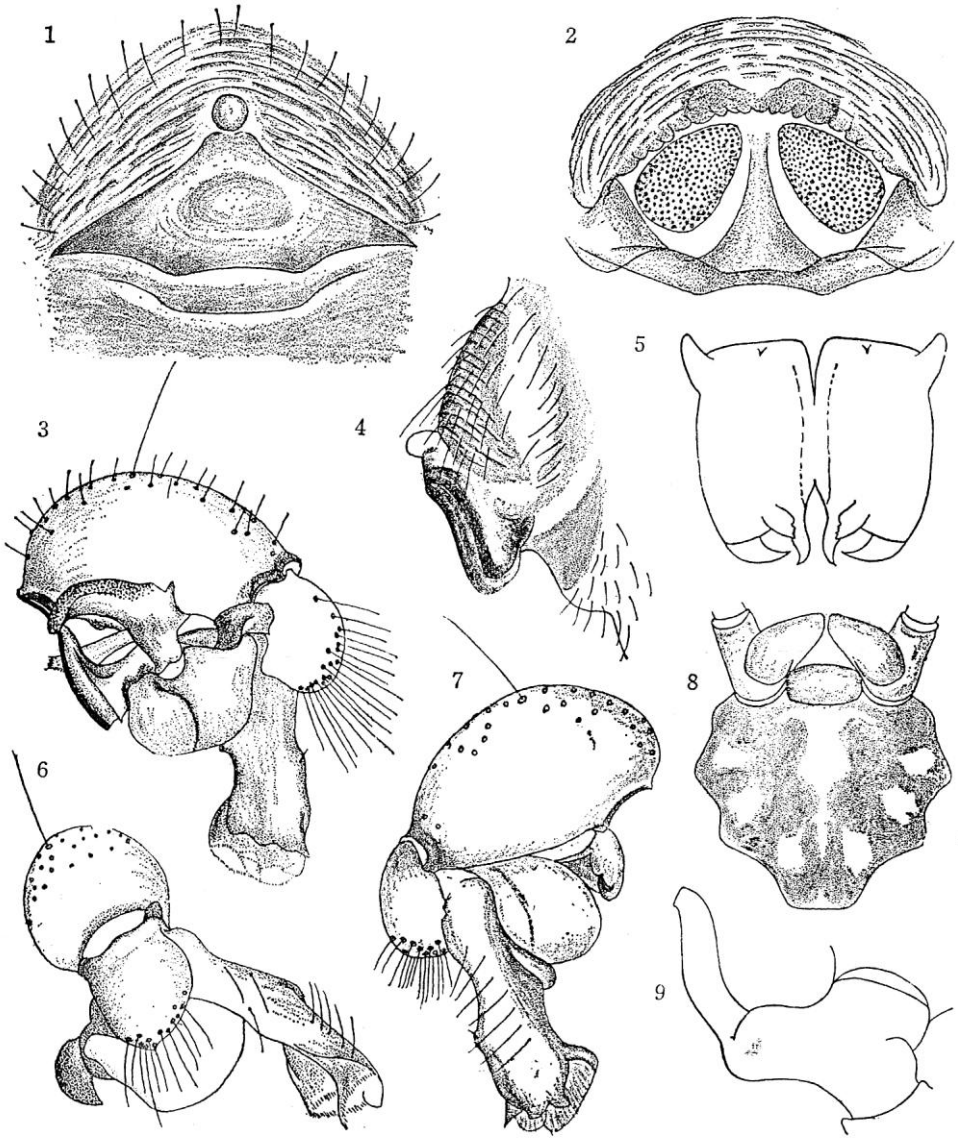


그림 95. 산유령거미(*Pholcus crypticolens*)
1: 암 외부 생식기(epigynum) 2: 암 내부 생식기(genitalia) 3: 더듬이다리 기관, 왼쪽, 안면(palpal organ, left, inner view) 4: 암 외부 생식기, 옆면(epigynum, lateral view) 5: 수컷의 위턱(chelicerae of male) 6: 더듬이다리 기관, 왼쪽, 등면(palpal organ, left, dorsal view) 7: 더듬이다리 기관, 왼쪽, 바깥면(palpal organ, left, ectal view) 8: 수컷의 가슴판, 아래턱 및 아랫입술(sternum, endite and labium of male) 9: 수컷의 더듬이다리의 도래마디, 오른쪽, 배면(trochanter of male palp, right, ventral view)

Paik 1978b

Hu, J-L. 1984. The Chinese spiders collected from the fields and forests. Tianjin Press Sci. Technol. Pp. 1-482; pl. 1-16.

p. 76

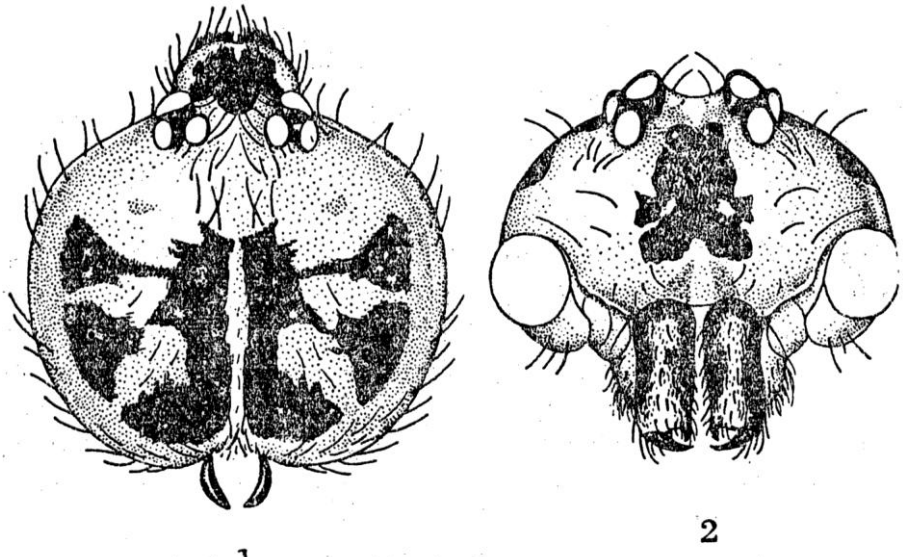


图68　隐匿幽灵蛛之头胸部
1.背面观　2.额面观（编者）

隐匿幽灵蛛 *Pholcus cryticolens* Boes *et* Str, 1906 （图版3，4—5）

雌蛛体长4—5毫米。头胸部淡黄色，背面中央有2个对称的、呈菊瓣状灰斑。头部隆起。8眼，前中眼为昼眼，基部有黑斑；其他6眼为夜眼，白色，皆大于前中眼。除前中眼外，其他6眼组成两个三角形，并位于隆起的眼丘上。自背面观察，二眼列均后曲，前中眼间距小于前中侧眼间距；后中眼间距甚大于后中侧眼间距，中眼区梯形，前边小于后边（图68）。额甚高并在前中眼与螯肢之间有大形黑斑。螯肢灰黑色，被有黑色长毛，前侧中央各有一纵行黄带，螯爪棕红色，后齿堤有1黑齿。触肢之腿、胫节基部及跗节呈灰褐色，其余黄色，被黑色长毛。颚叶黄色。下唇近似半圆形，基部有黑色斑纹。胸板呈倒梯形，前宽后窄，灰褐色，其中央有一淡黄斑，前窄后宽并散有多个灰褐色圆斑。此外，在其两侧缘各有3个淡色斑（图69，1）。步足极细长，黄褐色，其基节、腿节、膝节及胫节具灰黑斑点或轮纹。腹部呈圆筒状，前端稍细，后端钝圆，，浅黄色，并被有灰黑色斑点和细绒毛，腹背中央有4对灰黑色斑纹纵贯全长：第1对斑纹较细弱位于腹背前端，相距一段距离为第2对，第3、4对互相靠近。另外，在第4对斑纹后侧，还有一“人”字形灰斑。腹部腹面黄色，从外雌器至纺器之间有一宽的灰色纵带。纺器灰黑色。外雌器如图65，4—5所示。

雄蛛体长4毫米。形态与雌蛛同。螯肢除后齿堤有1齿外，螯肢前面靠近内侧有1黑齿，齿尖朝向螯爪；螯肢基部外侧缘另有1齿，齿尖朝向螯肢基部，在该齿之内侧还有1小齿（图70，2）。触肢器如图69，2—3所示。

多在山区田间、林丛及野外水边岩缝中结不规则网。

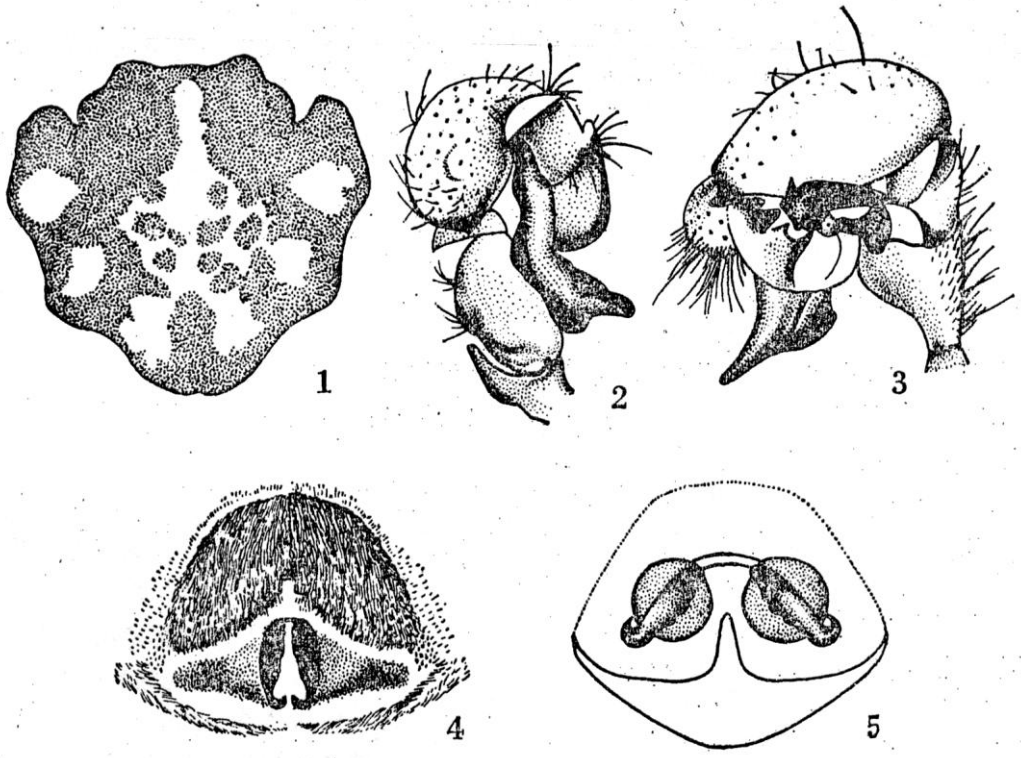


图69 隐匿幽灵蛛*Pholcus cryticolens*
1.胸板 2.雄蛛触肢器之外侧观 3.同前，内侧观
4.雌蛛外雌器之外形 5.同前，内部构造（编者）

p. 78

分布：山东（沂源、沂南、青岛崂山）、湖南、福建（厦门、福州）、安徽（滁县）、北京、台湾、河南、吉林。

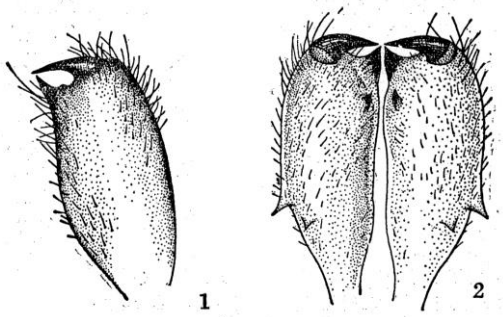
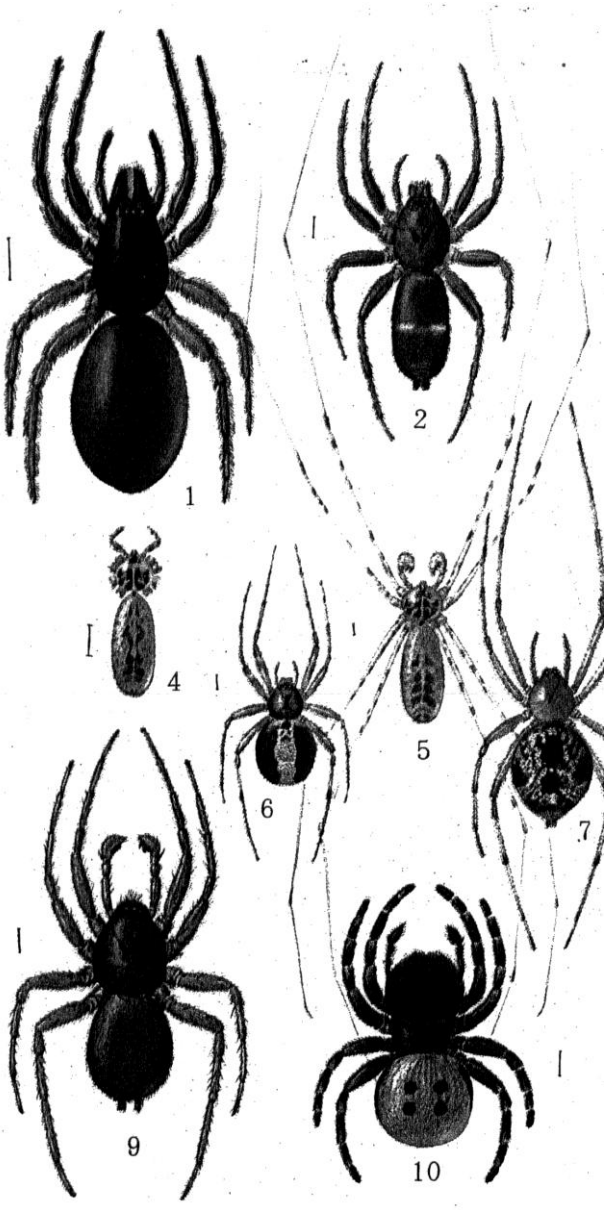


图70 隐匿幽灵蛛*Pholcus cryticolens*
1.雌蛛之螯肢 2.雄蛛螯肢之前面观（编者）

Pl. 3



4.隐匿幽灵蛛 *Pholcus cryticolens* Boes et Str（♀）
5.隐匿幽灵蛛 *Pholcus cryticolens* Boes et Str（♂）

Song, D. 1987. Spiders from agricultural regions of China (Arachnida: Araneae). Agriculture Publishing House, Beijing.

p. 110

隐股幽灵蛛
(*Pholcus cryptcolens* Boes. et Str., 1906)
(图72)

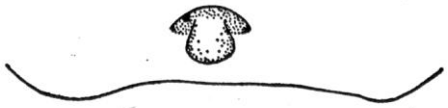


图 72　隐股幽灵蛛外雌器

雌蛛长 5.8 毫米。头部后方向周缘放射出 6 条褐色纹，放射纹末端有环纹相连成轮状。眼的排列同拟盲幽灵蛛。步足细长，并有褐色环纹。胸板上有褐色斑。腹部卵圆形，背面有斑纹，固定后褪色。胃外区隆起，在后斜坡壁上有一褐色乳头状突起，为外雌器。

已知分布于北京。

Feng, Z. Q. 1990. *Spiders of China in colour.* Hunan Science and Technology Publishing House, 256 pp.

p. 47

(22) 隐匿幽灵蛛　　图 22 图版 11—22

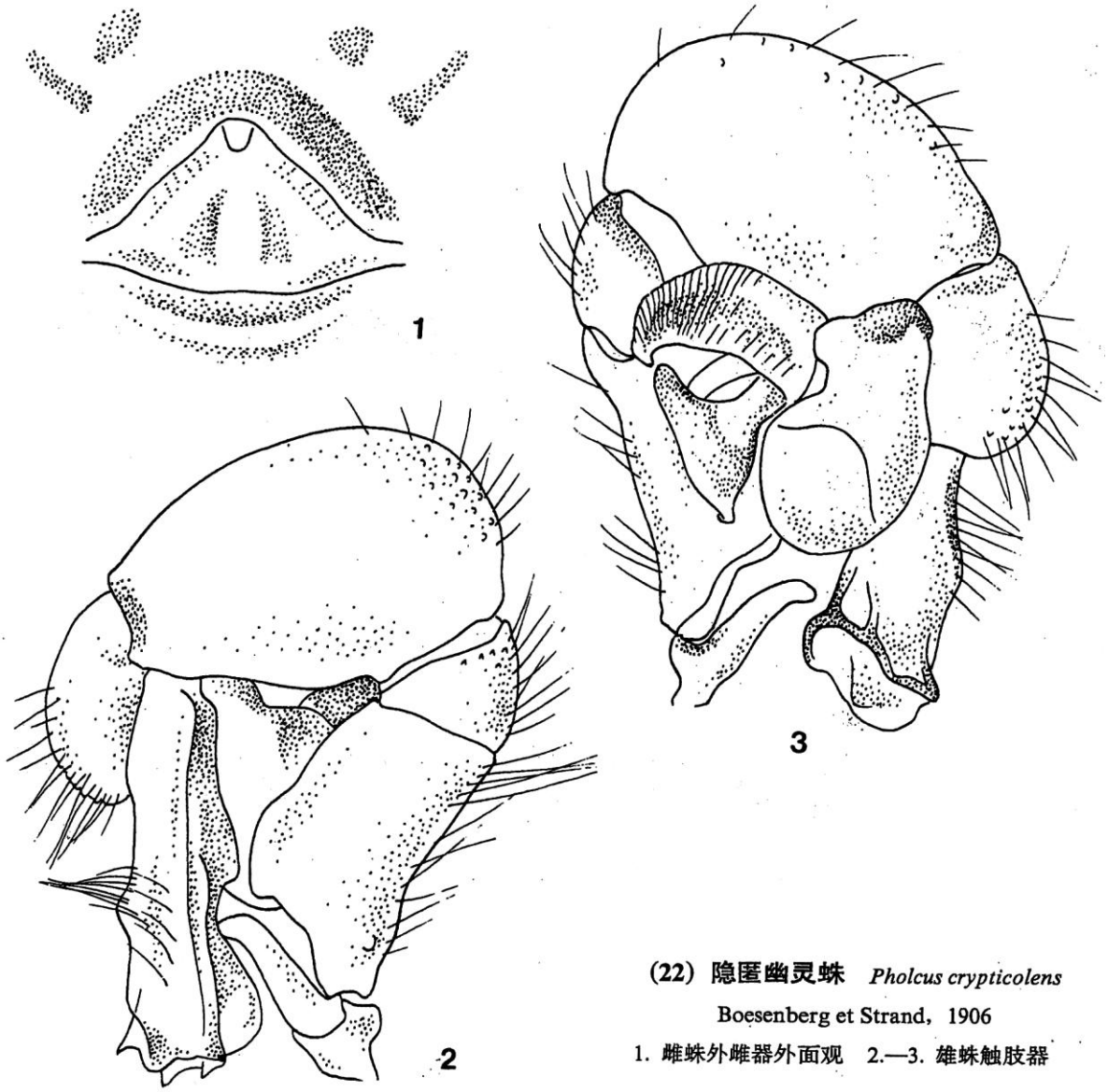
Pholcus crypticolens Boesenberg et Strand, 1906

雌蛛体长 4—5 毫米，雄蛛体长 4 毫米。

雌蛛头胸部背面中央有 2 个呈菊瓣状的褐色斑纹。8 眼，均位于头部凸出的隆起上，前中眼为昼眼，余 6 眼为夜眼，白色。腹部呈圆筒形，后端钝圆，腹背中央有 4 对褐色斑纹，其后尚有一“ɔc”形褐色斑。

多在山区岩缝、灌木丛暗处结不规则网，蜘蛛倒悬于网上。6—7 月份常可见成熟雌雄蛛在同一网上。

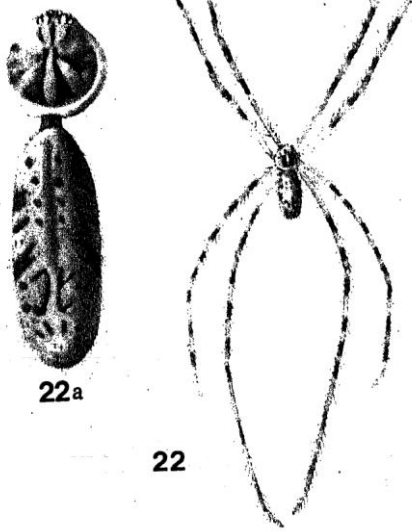
分布　北京、河北、吉林、安徽、福建、山东、河南、湖北、湖南、台湾。



(22) 隐匿幽灵蛛 *Pholcus crypticolens* Boesenberg et Strand, 1906

1. 雌蛛外雌器外面观　2.—3. 雄蛛触肢器

Pl. 11



22a

22

22) 隐匿幽灵蛛

Pholcus crypticolens

Boesenberg et Strand

a. 雌蛛背面观

Chen, Z., Zhang, Z. 1991. Fauna of Zhejiang. Araneida. Zhejiang Sci. Tech. Publ. Pp. 1-356; pl. 1-8.

p. 73

Pholcus crypticolens Bösenberg et Strand （图63）

别名 隐匿幽灵蛛

形态 雌蛛体长4～5毫米。头部隆起。胸部背面中央有2个对称的、似菊瓣状灰斑。8眼，前中眼为昼眼、最小，基部有黑斑；其他6眼为夜眼，呈白色，分别在两侧以3眼为1组，排列成三角形，并居于隆起的眼丘上。中眼区梯形，前边小于后边。额甚高，并在前中眼与螯肢之间有大形黑斑。螯肢被有黑色长毛，前侧中央各有一纵行黄带，后齿堤有1黑齿。胸板倒梯形，前宽后窄，灰褐色，中央有1淡黄斑，前窄后宽，并散有许多灰褐色圆斑。此外，在其两侧缘各有3个淡色斑。步足细长有黑色轮纹。

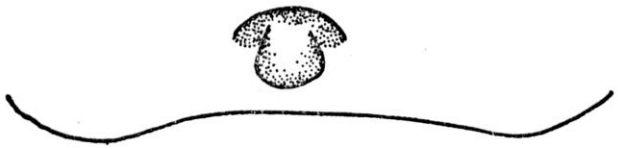


图63 隐股幽灵蛛 *Pholcus crypticolens* Bösenberg et Strand 外雌器外面观

腹部圆筒状，前端稍细，后端钝圆。背面有4对灰黑色斑纹，第1对较细弱，位于腹背前端，相隔一段距离为第2对，第3、4对互相靠近。另外，在第4对斑纹后侧，还有1“人”字形灰斑。腹部腹面黄色，自外雌器至纺器之间有一宽的灰色纵带。

p. 74

雄蛛体长4毫米。形似雌蛛。螯肢除后齿堤有1齿外，螯肢前面靠近内侧有1小黑齿，齿尖朝向螯爪；螯肢基部外侧缘另有1齿，齿尖朝向螯肢基部，在该齿之内侧还有1小齿。

习性 本种多在崖岩石缝、树根根际、林丛中，张不规则网。

分布 省内：丽水。国内还分布于吉林、山东、安徽、福建、台湾、河南。

Zhu, M.S. & Gong, L-S. 1991. Four new species of the genus *Pholcus* from China. Acta Zootaxonomica Sinica 16(1): 18-26.

p. 18

隐蔽幽灵蛛 *Pholcus crypticolens* Bosenberg *et* Strand, 1906 (图 1)

雌蛛体长 2.75; 雄蛛体长 2.73。

已知分布　台湾、福建、河南、吉林、山东、河北(石家庄)。

p. 19

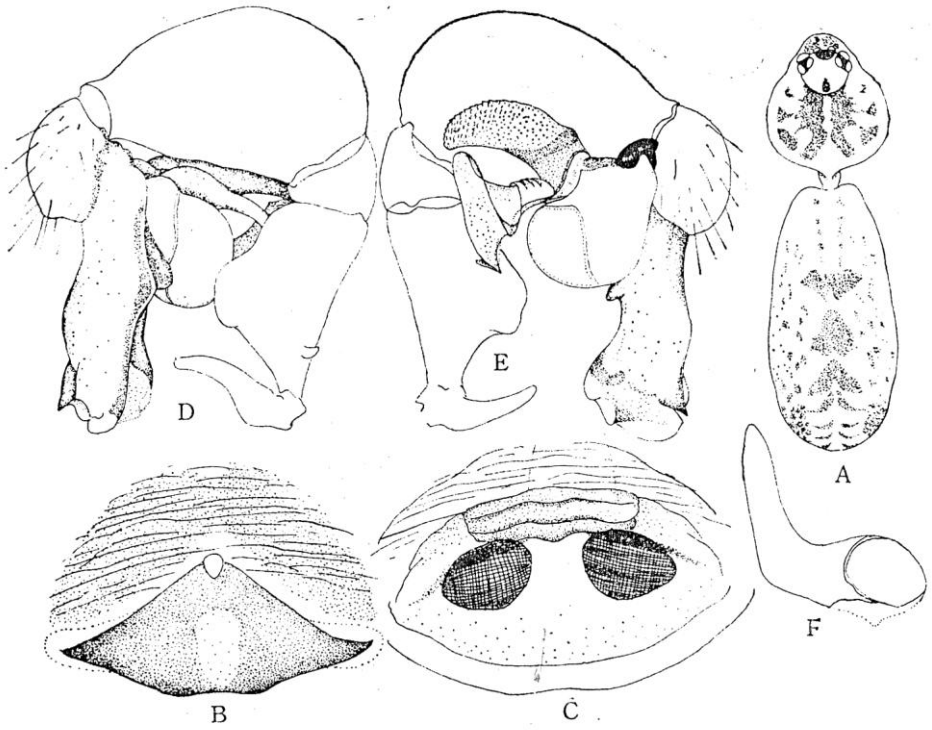


图 1　隐蔽幽灵蛛 *Pholcus crypticolens* Bosenberg *et* Strand, 1906

A. 雌蛛背面 (male, dorsal view) B. 外雌器外面 (epigynum, external view) C. 同上，内面 (do., vulva) D. 雄蛛左触肢器外侧面 (♂left palpal organ, exo-lateral view) E. 同上，内侧面 (do., endo-lateral view) F. 雄蛛触肢器转节 (♂trochanter of palp)

p. 25

1. *Pholcus crypticolens* Bosenberg *et* Strand, 1906 (fig. 1)

Female total length 2.75 mm. Male: total length 2.73 mm.

Distribution Taiwan, Fujian, Henan, Jilin, Shandong and Hebei Province.

Oliger, T. I. 1998. The spider genus *Pholcus* Walckenaer, 1805, in the Maritime Province, Russian Far East (Aranei: Pholcidae). Arthropoda Selecta 7(2): 111-115.

p. 111

Pholcus minutus **sp.n.**
Figs 1–12.

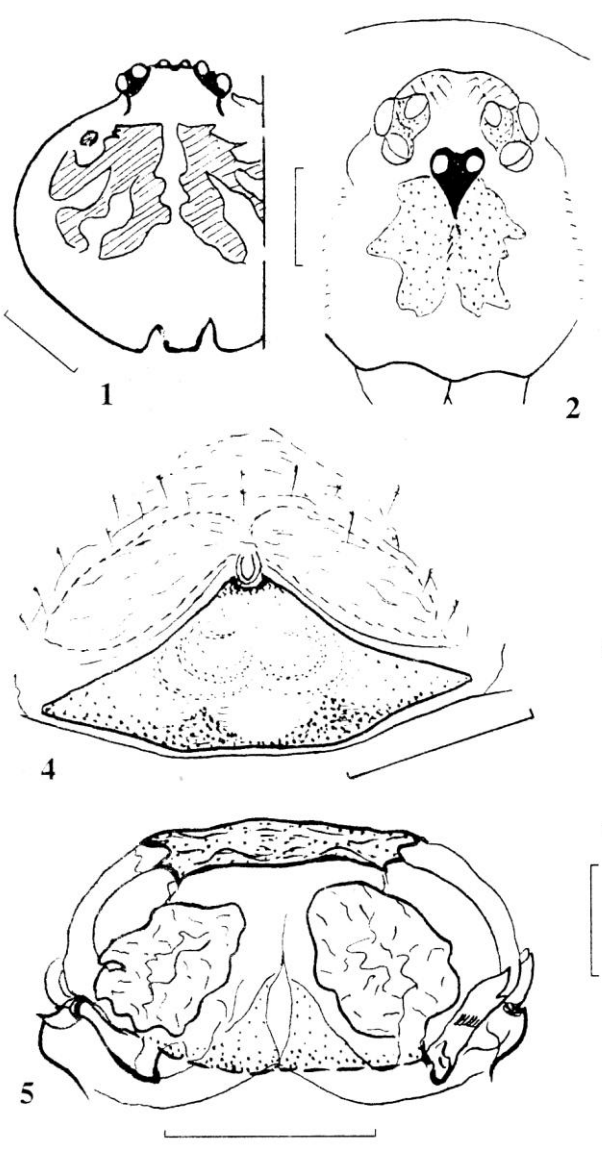
MATERIAL. Holotype ♀ (ZMUM). Maritime Prov., Lazovsky State Nature Reserve, Sukhoy Klyuch, 22.VI.1981, leg. T. Oliger. Allotype ♂, and paratypes: 1 ♂, together with holotype, and 6 ♀♀ (all in ZMUM), same locality, 23.VI.1981, leg. T. Oliger.

DESCRIPTION. Female. Length 3.5–4.0 (3.5 in holotype). General coloration faintly yellow. Carapace: length 0.9–1.1, width 0.8–1.0 (1.1 x 1.0) with a star-shaped brownish spot (Fig. 1). Cephalic part with short adpressed pubescence, frons with a gray spot (Fig. 2). Sternum yellow with thick brownish rounded specks turning into coalescung with edging along margins of sternum. Abdomen with a dorsomedian, dark, leaf-shaped pattern (Fig. 3), ventrally grayish. Legs yellow mottled with brownish.

Eyes: AM < AL > PM < PL = 4 : 7 : 6 : 8.

Epigynal plate transversely subtriangular with an inverted trapeziform base (Fig. 4), s 3.2–4.2 (3.8), h 1.2–1.9 (1.5), s/h ratio 2.5 (2.6). Plate's surface with weak explanate impressions: one impression in posterior, and further two, becoming one at midline, in fore. part. "Button" non-erect, light, its apex lying inside groove of epigynal plate. Accessory glands of internal structure well-visible (Fig. 5). Spermathecae relatively large, t d ratio about 1.6.

Male. Length 3.2. Coloration generally as in female but paler. Carapace: length 1.2, width 1.0. Top of



Figs. 1-6: *Pholcus minutus* spn: ♀ (1–5), ♂ (6): 1 — cephalothorax, dorsal; 2, 6 — cephalic part, frontal; 3 — abdomen, dorsal; 4 — epigyne; 5 — vulva. Abbreviations: d — spermathecal diameter, h — length of plate, s — width of plate, t — length of endogyne. Scale: 0.5 mm (1–2, 6), 0.25 mm (3–5).

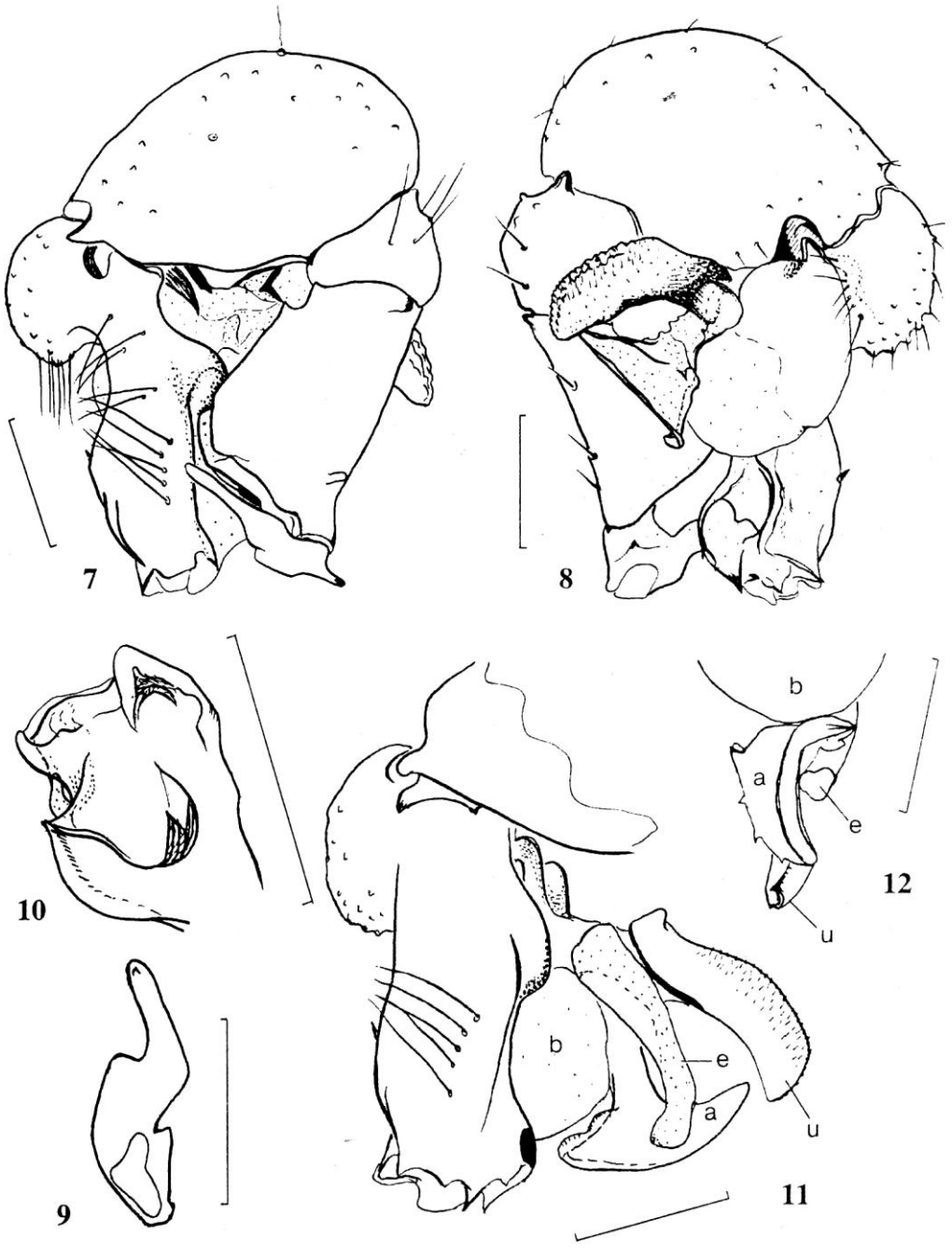
Рис. 1-6: *Pholcus minutus* spn: ♀ (1–5), ♂ (6): 1 — головогрудь, дорсально; 2,6 — голова, фронтально; 3 — брюшко, дорсально; 4 — эпигина; 5 — вульва. Условные обозначения: d — диаметр спермотеки, h — длина пластинки эпигины, s — ширина пластинки эпигины, t — длина эндегины. Масштаб: 0,5 мм (1–2, 6), 0,25 мм (3–5).

cephalic part with thick erect hairs inclined toward midline (Fig. 6). Anteromesal tooth of chelicera with three rounded, inwards decreasing capitula.

Palpus: white, non-sclerotized except for some protuberances or articulations (Figs 7, 8). Trochanter S-shaped, with an apical spur (Fig. 9). Femur with a small dorsal uncus at base and a protuberance near tip. Tip of cymbium regularly rounded; paracymbium dorsally with a small, caudad directed spine and a long, pointed, adpressed process ending up at top of this segment. Retrolateral surface of paracymbium with several long setae (Fig. 7), distally with several short protuberances and appendages (Fig. 10). Uncus elongated, rough at edge and with hardly visible, short hairs in its ventral part (Figs 8, 11). Embolus non-sclerotized (Fig. 11), with an appendage bearing 3–4 acute dorsal teeth (Fig. 12), of which first directed backwards and slightly bifid. Apex of embolus strongly truncate.

ECOLOGY. There are several warm radon water springs at Sukhoy Klyuch. Yet the spiders have been found in one place only, i.e. an open stony scree on a mountain slope southern of exposure, on the ground surface of boulders. The groups of spiders consisted of numerous juveniles of different age, several adult females, and only very few males.

DIAGNOSIS. The new species is closely related to *Ph. crypticolens*, the latter form known from Japan [Bösenberg & Strand, 1906; Chikuni, 1989], Korea [Paik, 1978], China [Zhu & Gong, 1991; Chen & Zhang, 1991]. However, the colouration of both male and female of *Ph. minutus* is more pallid, the spot on the carapace does not reach the latter's hind edge. The female differs by genital structure, namely by the shape of the epigynal plate, the size and shape of the spermatheca. The male differs by the shape and structural details of the trochanter, embolic appendage and uncus.



Figs. 7–12. *Pholcus minutus* sp.n, ♂: 7–8 — left pedipalp, retrolateral (7), prolateral (8); 9 — trochanter, proximal; 10 — tip of paracymbium, ventral; 11 — palpal components, retrolateral; 12 — palpal components, frontal. Abbreviations: a — appendage, b — bulbus, e — embolus, u — uncus. Scale 0.25 mm.

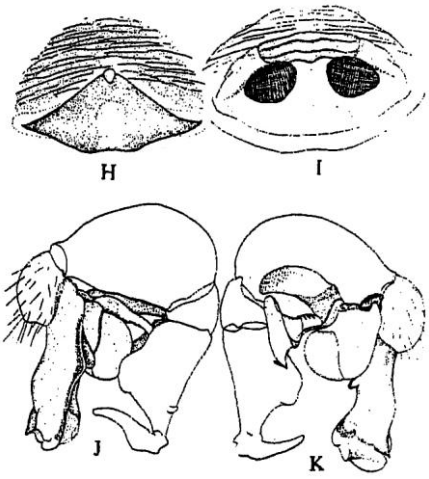
Рис. 7–12. *Pholcus minutus* sp.n, ♂: 7–8 — левый пальпус, ретролатерально (7), пролатерально (8); 9 — трохантер, проксимально; 10 — вершина парацимбиума, вентрально; 11–12 — детали строения пальпы, ретролатерально (11), фронтально (12). Условные обозначения: a — аппендикс, b — бульбус, e — эмболюс, u — ункус. Масштаб 0,25 мм.

Song, D., Zhu, M., and Chen, J. 1999. The Spiders of China. Hebei Science and Technology Publishing House. 640 pp., 4 plates.

p. 57

***Pholcus crypticolens* Boesenberg *et* Strand**, 1906 (**fig. 23H—K; pl. 1D—E**)
Pholcus crypticolens: Schenkel, 1963: 101, f. 58; Hu, 1984: 77, f. 69—70 (*cryticolens*); Song, 1987: 110, f. 72; Feng, 1990: 47, f. 22; Chen & Gao, 1990: 40, f. 42 (*cryticolens*); Chen & Zhang, 1991: 73, f. 63; Zhu & Gong, 1991: 18, f. 1.
Distribution: Taiwan, Fujian, Zhejiang, Anhui, Sichuan, Hunan, Hubei, Hebei, Beijing, Shandong, Jilin; Korea, Japan.

p. 61



Marusik, Y. M., Koponen, S. 2000. New data on spiders (Aranei) from the Maritime Province, Russian Far East. Arthropoda Selecta 9(1): 55-68.

p. 65

Pholcus zichyi Kulczyński, 1901

Pholcus zichyi Kulczyński, 1901: 326, Table XII, figs. 3–4;
Pholcus crypticolens Bösenberg et Strand, 1906: 127, **syn.n.**;
Pholcus clavatus Schenkel, 1936: 32, f. 8, **possibly syn.n.**;
Pholcus minutus Oliger, 1998: 111, f. 1–11 (holotype in ZMMU examined), **syn.n.**;
Chikuni, 1989: 28, f. 3; Song et al., 1999: f. 23h–k.

Material examined: 2 ♀♀, [13] 43°52′N 134°17′E, Pravaya Izvilinka Riv., scree, 2.08.1998, YM; 11 ♂♀, [10] S part of Ussuri Reserve, 43°39′N 132°33′E, 29–31.07.1998, YM; 3 ♂♀, [09] env. of Anisimovka Vill. 43°10′N 132°46′E, 24–28.07.1998, YM; 121 ♂♀, [21] Khasan Distr., env. of Andreevka Vill., 42°35–36′N 131°13′E, 11–15.08.1998, YM.

COMMENTS. Mongolo-Manchurian range. Occurs from Central Aimak in Mongolia [Marusik & Logunov, 1998] to the southeast to Taiwan and to the east to Hokkaido [Song et al., 1999; Chikuni, 1989: sub. *P. crypticolens*]. This species lives in great variety of habitats from semi-desert in Mongolia to gravely seashore, cliffs, within cavities between roots and stones on steep slopes in the Maritime Province (personal data), and no differences were found between specimens from Mongolia and the Maritime Province.

Song, Zhu & Chen, 2001: 76, f. 33A-F

Namkung, J. 2003. The Spiders of Korea. Kyo-Hak Publishing Corporation, Seoul. 648 pp.

p. 43

5-3 산유령거미

Pholcus crypticolens Bösenberg et Strand 1906

산유령거미(우)

산유령거미와 알주머니

a. 우 외부 생식기

b. 수 교접 기관

- 몸 길이
  우 5~6mm
  수 4~5mm
- 출현기
  5~8월
- 분포
  한국, 일본, 중국, 러시아 등

배갑은 원반형으로 편평하나 머리 쪽이 약간 높으며, 황백색 바탕에 중앙선으로 갈라진 암갈색 얼룩무늬가 있다. 위턱의 밑마디 앞쪽에 넓적니 모양의 돌기가 있다. 가슴판은 암갈색으로 얼룩져 있으나, 중앙 세로무늬와 다리 밑마디에 맞서는 둥근 무늬는 황갈색이다. 다리는 매우 길고 가늘며, 황갈색 바탕에 암갈색 무늬가 얼룩져 있다. 배는 긴 타원형으로 날씬하며, 황갈색 바탕에 중앙부를 달리는 암갈색 세로무늬가 있다. 산림성 거미로 산비탈 바위 밑, 동굴 입구 등의 침침한 곳에 불규칙한 그물을 치고 산다.

Lee & Kim, 2003: 108, f. 19-30 (mf).

Zhang, F., Zhu, M.S. 2009. A review of the genus *Pholcus* (Araneae: Pholcidae) from China. Zootaxa 2037: 1-114.

***Pholcus crypticolens* Bösenberg & Strand, 1906**
(Fig. 8)

Pholcus zichyi Kulczyn'ski 1901: 326, pl. 12, f. 3–4 (nomen oblitum). Marusik & Koponen, 2000: 65.
Pholcus crypticolens Bösenberg & Strand 1906: 127, pl. 6, f. 72, pl. 15, f. 440. Schenkel 1963: 101, f. 58. Paik 1978: 223, f. 95.1–7. Yaginuma 1986: 29, f. 17.2. Song 1987: 110, f. 72. Feng 1990: 47, f. 22.1–3. Chen & Zhang 1991: 73, f. 63. Zhu & Gong 1991: 18, f. 1A–F. Song, Zhu & Chen 1999: 57, f. 23H–K. Song, Zhu & Chen 2001: 76, f. 33A–F. Namkung 2003: 46, f. 5.3a–b. Lee & Kim 2003: 108, f. 19–30.
Pholcus cryticolens Hu 1984: 77, f. 69–70. Chen & Gao 1990: 40, f. 42a–b (lapsus for *P. crypticolens*).
Pholcus minutus Oliger 1998: 111, f. 1–12.

Diagnosis. This species is very similar to *P. spilis*, both with numerous black spots on legs and bodies, with nearly identical epigyna and palpal bulbs. *P. crypticolens* can be distinguished from *P. spilis* by the palpal femur with a hook-shaped bulge (Fig. 8I), by the shape of the appendix (Fig. 8H), and by the shape of the anterior sclerotized arch of the epigynum in dorsal view (Fig. 8B).

Redescription. Male (Mt. Xiaowutai), one male specimen total length 3.9: cephalothorax 1.2 long, 1.3 wide; abdomen 2.7 long, 1.1 wide. Leg I: 29.6 (7.9+0.5+7.7+11.7+1.8), tibia II: 5.1, tibia III: 3.6, tibia IV: 4.6; tibia I L/D: 55. Prosoma shape as in Fig. 8D. Carapace short, broad and almost circular, ochre, with brown marks broadly connecting to ocular area. Cephalic region raised, without brown marks centrally, ocular area dark yellow. Clypeus 0.40, dark ochre, with yellow marks. Distance AME–AME 0.04. Diameter AME 0.07, ALE 0.14, PME 0.12, PLE 0.13. Chelicerae as in Fig. 8F, with pair of black apophyses distally, pair of unsclerotized thumb-shaped apophyses proximolaterally and pair of small unsclerotized rounded apophyses proximocentrally. Labium and endites light yellow. Sternum with numerous irregular brown dots as in Fig. 8E. Femora, patellae, tibiae and metatarsi ochre, with many dark brown dots, and tarsi brown. Abdomen cylindrical, pale ochre, dorsum with numerous small brown patterns as in Fig. 8D. Venter pale brown. Palps as in Figs. 8H and 8I, bulb with large curved uncus, triangular appendix, and short embolus, femur with a retrolateral projection. Procursus as in Fig. 8G. Tarsal organ capsulate.

Female: in general very similar to male. One female (Mt. Xiaowutai) total length 3.6: cephalothorax 1.3 long, 1.4 wide; abdomen 2.3 long, 1.2 wide. Tibia I 6.1. Distance AME–AME 0.03. Diameter AME 0.08, ALE 0.13, PME 0.11, PLE 0.12. Epigynum roughly triangular as in Fig. 8A, with a knob-shaped apophysis on the top. Dorsal view as in Fig. 8B, with a rainbow-shaped sclerotized arch anteriorly and a pair of relatively large, oval pore plates.

Distribution. Hebei, Henan, Liaoning, Jilin; Russia; Korea; Japan.

Material. Type material. *P. crypticolens*: type specimen 1 ♀ near Nagasaki ("Bei Nagasaki"), Japan, 30 August, 1882, leg. Dönitz, not examined. *P. minutus*: holotype ♀ from Lazovsky State Nature Reserve, Maritime Province, Russia (June 22, 1981, leg. T. Oliger), deposited in ZMUM, examined by Marusik, 2000. Other type material unknown.

Material examined. CHINA: **Hebei**: Yu County, Mt. Xiaowutai, July 12, 1999, leg. F. Zhang, 4♂, 4♀ (MHBU); August 20, 2005, leg. F. Zhang, 4♀ (MHBU); July 6, 2006, leg. F. Zhang, 2♀ (MHBU); Yi County, July 1, 1999, leg. F. Zhang, 2♂, 1♀ (MHBU); Laiyuan County, July 25, 1999, leg. F. Zhang, 2♂, 3♀ (MHBU);

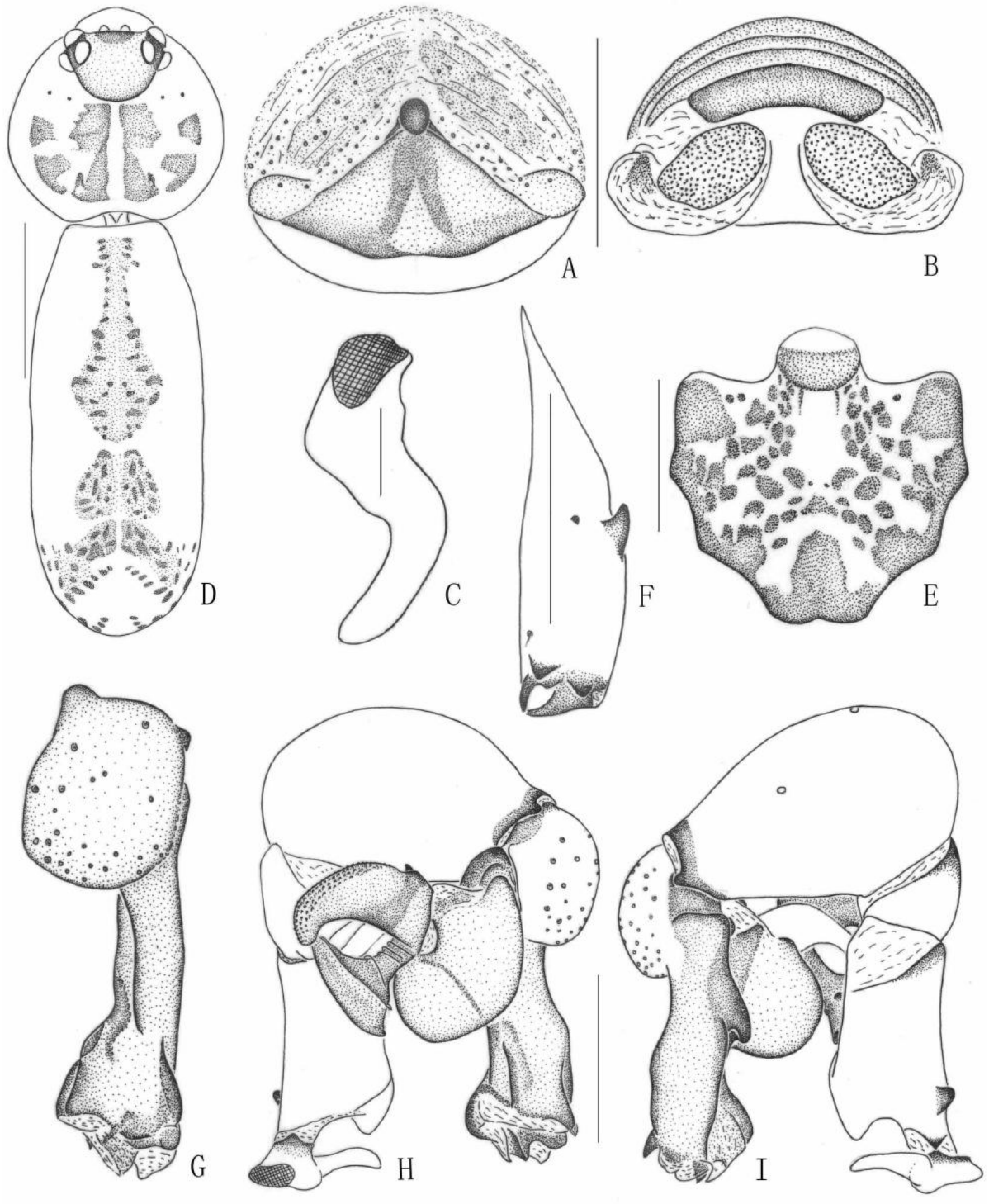


FIGURE 8. *Pholcus crypticolens* Bösenberg & Strand, 1906. A. epigynum, ventral view. B. same, dorsal view. C. trochanter of male left palp, dorsal view. D. male body, dorsal view. E. male sternum, ventral view. F. male left chelicera, frontal view. G. left procursus, dorsal view. H. left palp, prolateral view. I. same, retrolateral view. Scale lines: 1.0mm (D), 0.5mm (A, B, E–I), 0.2mm (C).

p. 25

Zhuolu County, Yangjiaping Village, July 6, 2004, leg. F. Zhang, 3♂, 8♀ (MHBU); Tang County, Mt. Damao, May 6, 2001, leg. J. X. Zhang, 1♂, 2♀ (MHBU); Wuqiang County, Xiguan Village, October 6, 2004, 1♂ (MHBU). **Henan**: Song County, Mt. Tianchi, July 12, 2004, leg. M. S. Zhu, 2♀ (MHBU). **Liaoning**: Dalian City, July 3, 2003, leg. F. Zhang, 1♀ (MHBU); Kuandian County, Mt. Huangyi, July 6, 2003, leg. F. Zhang, 1♀ (MHBU). **Jilin**: Jiaohe County, July 27, 2003, leg. F. Zhang, 1♀ (MHBU).

Remark. This species is very similar to *P. spilis*, both with numerous black spots on legs and bodies, with nearly identical epigyna and palpal bulbs. Both species are usually identified as *P. crypticolens* in China. According to the specimens we collected from China, we think *P. crypticolens* is distributed in north Asia, including northern China, Russia, Mongolia, Korea and Japan, while *P. spilis* is only distributed in the south of China.

Huber, B. A. 2011. Revision and cladistic analysis of *Pholcus* and closely related taxa (Araneae, Pholcidae). Bonner zool. Monographien 58: 1-510.

p. 354

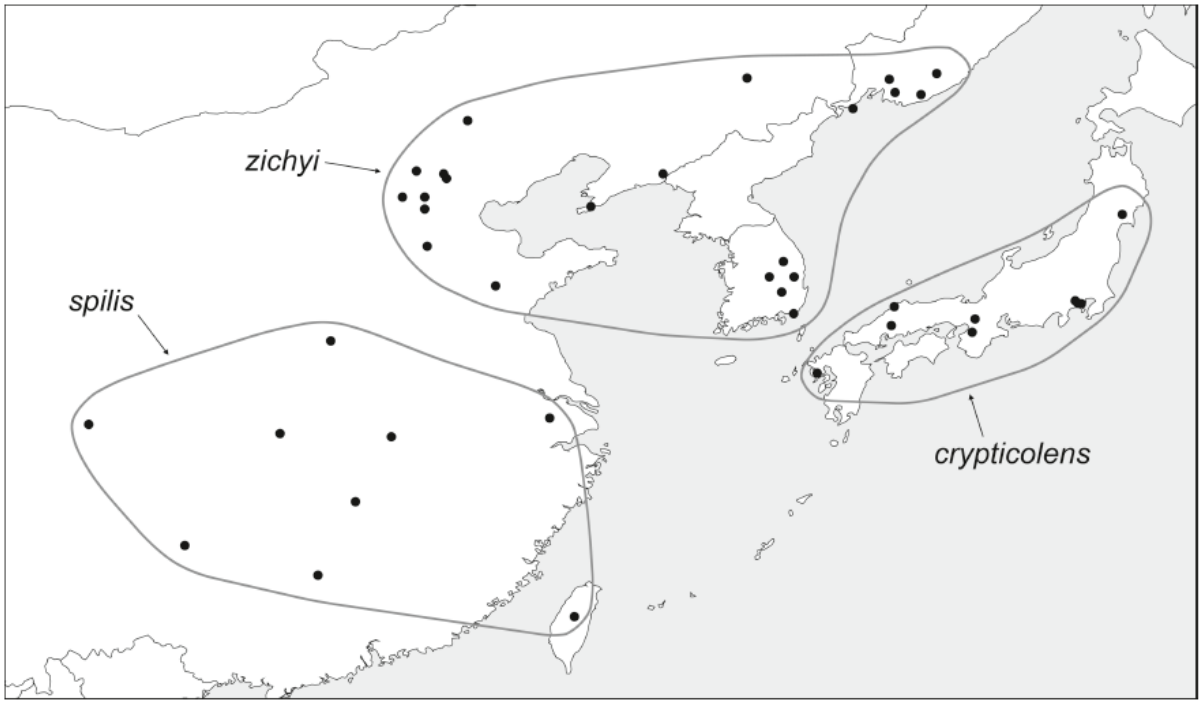


FIG. 1706. Known distribution of the *Pholcus crypticolens* species group (for *Ph. manueli* and *Ph. bessus*, see Figs. 1707, 1708).

Pholcus zichyi Kulczyński, 1901

Figs. 1725, 1726

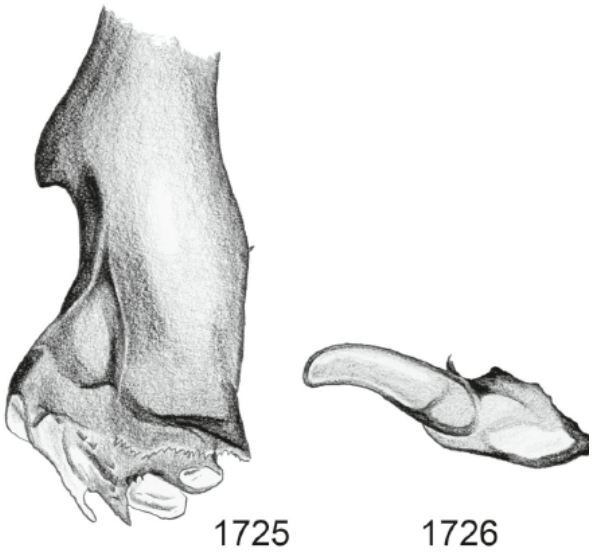
Pholcus zichyi Kulczyński 1901: 326-328, pl. 12, figs. 3-4. Erroneously synonymized with *Ph. crypticolens* by Marusik & Koponen (2000: 65), suppressed for lack of usage by Platnick (2001); see Note under *Ph. crypticolens*.

Pholcus minutus Oliger 1998: 111-112, figs. 1-12. Synonymized by Marusik & Koponen (2000: 65).

"*Pholcus crypticolens*" (misidentifications): Schenkel 1963: 101, fig. 58. Paik 1978a: 223, figs. 95.1-9; 1978b: 2-3. Hu 1984: 77, figs. 68-70, pl. 3, figs. 4, 5. Song 1987: 110, fig. 72. Feng 1990: 47, figs. 22, 22a, 22.1-3. Chen & Zhang 1991: 73-74, fig. 63. Zhu & Gong 1991: 18, 25, figs. 1a-f. Song *et al.* 1999: 57, figs. 23h-k (copied from Zhu & Gong 1991). Song *et al.* 2001: 76, figs. 33a-f (copied from Zhu & Gong 1991). Namkung 2003: 44, figs. 5.3♂♀, a, b. Lee & Kim 2003: 108, figs. 19-30 (copied from Paik 1978a). Zhang & Zhu 2009a: 23-25, figs. 8a-i.

Types. Pholcus zichyi: female holotype (or syntypes?) from China, "Tshan-pin-cho" [=Ch'ang-p'ing-ch'u, Changping District, W of Beijing, 40°12'N, 116°12'E], 1897-1898 (E. Zichy), depository unknown, not examined.

Pholcus minutus: female holotype, male "allotype" and 1♂ paratype from Russia, Maritime Province, Lazovsky State Nature Reserve, Sukhoy Klyuch [43°03'N, 133°43'E], 22.vi.1981 (T. Oliger), in ZMMU, examined; 6♀ paratypes, same data but 23.vi.1981, in ZMMU, examined.



Ph. zichyi (1725, 1726). 1722, 1723, 1725. Left procursi in prolateral (1722) and prolatero-dorsal views (1723, 1725); arrows point at distinctive apophysis. 1724, 1726. Left palpal trochanters, retrolateral views. Scale line (for all): 0.5.

Diagnosis. Easily distinguished from most congeners by distinctive color pattern of carapace and abdomen (dorsally and ventrally) (as in *Ph. crypticolens*; cf. Figs. 1651-1653) and of legs (sprinkled with light brown spots). Also by morphology of male palp (very similar to *Ph. crypticolens*, cf. Figs. 1709, 1710; shapes of procursus, uncus, and appendix) and female genitalia (very similar to *Ph. crypticolens*, cf. Fig. 1669); from the very similar *Ph. crypticolens* only by minor details of procursus (absence of prolateral spine) and trochanter apophysis shape (Figs. 1725, 1726).

Description. See Feng (1990), Zhu & Gong (1991), Oliger (1998), and Zhang & Zhu (2009a) (under "*Ph. crypticolens*" and "*Ph. minutus*" respectively). Procursus and male palpal trochanter apophysis as in Figs. 1725 and 1726.

Distribution. Widely distributed in China, eastern Russia, and Korea (Fig. 1706). According to Zhang & Zhu (2009a), *Ph. zichyi* (under "*Ph. crypticolens*") in China is restricted to the north (Jilin, Liaoning, Hebei, Beijing, Henan, Shandong), but they did not comment on older records for southern China (Fujian, Zhejiang, Hunan, Sichuan) and Taiwan (Zhu & Gong 1991, Song *et al.* 1999) that would then rather be *Ph. spilis*.

Material examined. RUSSIA: *Maritime Province*: Lazovsky State Nature Reserve, Sukhoy Klyuch: 2♂7♀ types of *Ph. minutus* above. S part of Ussuri Reserve (43°39'N, 132°33'E), 29.-31.vii.1998 (Yu.M. Marusik), 1♂1♀ in USNM.

CHINA: *Hebei*: Zhuolu County, Yangjiaping Village [40°18'N, 115°12'E], 3.vii.2004 (F. Zhang), 1♂1♀ in MHBU.