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The Spider Fauna of Mt. Jiri, Cholla-namdo, Korea.

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지리산의 거미상

남 궁 준 · 백 운 하 · 윤 경 일

Mt. Jiri is the highest mountain in the southern part of the Peninsula, reaching 1915m above sea level. Recently it was made a National Park. However, the fauna of this mountain has not been investigated sufficiently.

Materials were collected during 11-14 August 1972 by the senior author and Yoon to compare the spider fauna of Mt. Jiri with that of Mt. Hanla, Chejudo, which is the highest mountain in South Korea. Since the mountain is too large to cover the whole area, only outer Jiri, i,e., Banyabong, the second highest peak and Nogodan, the third highest one, which are located in the south-western part of the mountain, were investigated. In addition to this, materials collected by Paik et al during the latter part of July 1971 at Nogodan and Piagol also were examined.

Although these materials are not sufficient for general discussion of the fauna of Mt. Jiri, an outline of the distribution of spiders can be summarized.

Hitherto, 73 species belonging to 18 families were reported by K.Y. Paik (1942—1972) and W.H. Paik et al (1970). However, the collection data do not give details regarding vertical distribution and environment.

The localities are grouped for convenience as follows: Yeongoksa(300-400m), Whaomsa(400-600m), Piagol(500-900m), Whaomsagol(600-900m), Yongsubawi(900-1,000m), Kojae(900-1,300m), Imgeollyong(1,400-1500m), Nogodan(1,400-1,550m)

Results

1. In this report 135 species, including 6 undetermined species, belonging to 21 families are tabulated through the aid of published data and collection made by the authors.
2. Fifty six species are added to the fauna, of which 16 species are previously unreported in Korea.
3. The undetermined species will be published later as new species.
4. The spider fauna of Mt. Jiri include 26 northern species (20.2%), 8 southern species (6.2%), 3 cosmopolitan species (2.3%), and 92 Palaearctic temperate species (71.3%).
5. The vertical distribution is as follows:

   1550—1750m (Banyabong) : 18 species
   1400—1550m : 38 species
   900—1400m : 39 species
   600— 900m : 72 species
   up to 600m : 79 species

   This figure indicates clearly that at higher altitudes, fewer species are found. In localities above 1,300m there were only 44 species (32.6%)
6. The predominant species of Mt. Jiri is *Prolinyphia emphana*, it is found in large numbers between 600 and 1,550m.
7. Salticidae and Lycosidae are relatively few in number.

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A List of Spiders of Mt. Jiri.

(Asterisk mark shows new to the Korean fauna)

Pal: Palaearctic, Or: Oriental, Hol: Holarctic Cos: Cosmopolitan

		Altitude (m)					
		1750–1500	1500–1300	1300–900	900–600	600–300	
1. *Amaurobiidae*	**비탈거미과**						
1. *Titanoeca nipponica* YAGINUMA	살깃자갈거미					○	
2. *Dictynidae*	**잎거미과**						
2. *Dictyna felis* BOES et STR.	잎거미					○	
3. *Uloboridae*	**응달거미과**						
3. *Hyptiotes affinis* BOES. et STR.	부채거미					○	
4. *Uloborus sybotides* BOES. et STR.	꼽추응달거미				○	○	
5. *Uloborus yesoensis* (SAITO)	북응달거미				○	○	
6. *Uloborus* sp. (A)			○	○			
4. *Pholcidae*	**유령거미과**						
7. *Pholcus crypticolens* BOES. et STR.	산유령거미		○	○	○	○	
8. *Pholcus opilionoides* (SCHRANK)	대륙유령거미					○	Pal
5. *Theridiidae*	**꼬마거미과**						
9. *Anelosimus crassipes* (BOES. et STR)	잎무늬꼬마거미					○	
※10. *Conopistha fur* (BOES. et STR)	안장더부살이거미(신칭)				○	○	
11. *Dipoena mustelina* (SIMON)	게꼬마거미	○				○	
12. *Phoroncidia pilula* (KARSCH)	혹부리꼬마거미				○		
13. *Theridion japonicum* BOES. et STR.	점박이꼬마거미				○	○	
14. *Theridion kompirense* BOES et STR.	석접꼬마거미			○			
15. *Theridion latifolium* YAGINUMA	넓은잎꼬마거미				○		
16. *Theridion rapulum* YAGINUMA	삼각점꼬마거미	○		○			
17. *Theridion tepidariorum* (C. KOCH)	말꼬마거미			○	○	○	Cos
6. *Linyphiidae*	**접시거미과**						
※18. *Arcuphantes* sp. (A)	나사접시거미(신칭)			○			
19. *Linyphia clathrata* SUNDEVALL	십자접시거미		○				Hol
20. *Linyphia kimyongkii* PAIK.	화엄접시거미					○	
21. *Linyphia oidedicata* (HELSDINGEN)	고무래접시거미			○	○	○	
22. *Neolinyphia japonica* OI.	가시접시거미		○		○	○	
23. *Neolinyphia nigripectoris* OI	검정접시거미		○	○	○	○	
24. *Prolinyphia emphana* (WALCKENAER)	대륙접시거미	○	○	○	○		Pal
25. *Prolinyphia limbatinella* (BOES. et STR.)	쌍줄접시거미				○	○	
26. *Prolinyphia longipedella* (BOES. et STR.)	농발접시거미		○	○	○	○	
27. *Prolinyphia marginata* (C. KOCH)	테두리접시거미		○	○	○	○	Hol
7. *Micryphantidae*	**애접시거미과**						
28. *Apriflrontaita mascula* (KARSCH)	곱등애접시거미		○		○		
※29. *Diplocephaloides saganus* (BOES. et STR.)	흰배애접시거미(신칭)		○				
※30. *Gnathonarium dentatum* (WIDER)	황갈애접시거미(신칭)			○			Pal
※31. *Nematogmus sanguinolentus*(WALCKENAER)	앵두애접시거미(신칭)			○	○		Cos
32. *Dedothorax insecticeps* BOES. et STR.	등줄애접시거미		○				
8. *Mimetidae*	**해방거미과**						
33. *Ero japonica* BOES. et STR.	뿔해방거미			○		○	
34. *Mimetus testaceus* YAGINUMA	큰해방거미					○	

		Altitude (m)					
		1750–1500	1500–1300	1300–900	900–600	600–300	
9. *Theridiosomatidae* 알망거미과							
35. *Theridiosoma epeiroides* Boes. et Str.	알망거미			○			
10. *Argiopidae* 호랑거미과							
※36. *Araneus angulatus* (Clerck)	모서리왕거미(신칭)		○				Pal.
37. *Araneus displicatus* Hents.	육점박이왕거미				○		Hol
38. *Araneus ejusmodi* Boes. et Str.	노랑무늬왕거미				○	○	
39. *Araneus fuscocoloratus* Boes. et Str.	먹왕거미					○	
※40. *Araneus ishisawai* Kishida	부셔왕거미(신칭)	○	○	○			
41. *Araneus lugubris* (Walckenaer)	적갈왕거미			○		○	Or.
42. *Araneus miitificus* (Simon)	미녀왕거미					○	Or.
※43. *Araneus nordmanni* (Thorell)	반야왕거미(신칭)	○					Hol.
※44. *Araneus triguttatus* Fabricius(?)	방울왕거미(신칭)	○	○				Pal.
45. *Araneus ventricosus* (L. Koch.)	산왕거미					○	
46. *Argiope amoena* L. Koch	호랑거미					○	Or.
47. *Argiope bruennichii* (Scopoli)	긴호랑거미	○	○	○	○	○	Pal.
48. *Argiope minuta* Karsch	꼬마호랑거미				○	○	
49. *Cyclosa ginnaga* Yaginuma	장은먼지거미			○			
50. *Cyclosa japonica* Boes. et Str.	북먼지거미				○		
51. *Cyclosa octotuberculata* Karsch	여덟혹먼지거미					○	
52. *Cyclosa sedeculata* Karsch	네혹먼지거미					○	
53. *Cyclosa vallata* Keyserling	녹두먼지거미				○		Or.
54. *Cyrtarachne inaequalis* Thorell.	큰새똥거미				○		Or.
55. *Gasteracantha kuhlii* C. Koch	가시거미				○	○	Or.
56. *Mangora* sp. (우y)					○	○	
57. *Meta kompirensis* Boes. et Str.	병무늬왕거미				○	○	
58. *Meta reticuloides* Yaginuma	민무늬왕거미			○	○		
59. *Meta yunohamensis* Boes. et Str.	안경무늬왕거미		○		○		
60. *Neoscona adiantum* (Wallckenaer)	각시어리왕거미	○	○	○			Pal.
61. *Neoscona doenitzi* (Boes. et Str.)	둘어리왕거미					○	
62. *Neoscona mellotteei* (Simon)	점연두어리왕거미			○	○	○	
63. *Neoscona nautica* (L. Koch)	집어리왕거미				○	○	Cos.
64. *Neoscona scylla* (Karsch)	지이어리왕거미			○	○	○	
65. *Neoscona scylloides* (Boes. et Str)	연두어리왕거미				○		
66. *Nephila clavata* L. Koch	무당거미				○	○	Or.
67. *Pronus minutus* (Saito)	콩왕거미부치		○				
68. *Singa pygmaea* (Sundevall)	넉점애왕거미			○			pal.
69. *Singa sanguinea* C. Koch	산자애왕거미		○	○			Pal.
※70. *Yaginumia sia* (Strand)	그늘왕거미(신칭)					○	
71. *Zilla sachalinensis* (Saito)	북왕거미	○	○	○	○		
11. *Tetragnathidae* 갈거미과							
72. *Leucauge magnifica* Yaginuma	왕백금거미					○	
73. *Leucauge subblanda* Boes. et Str.	꼬마백금거미		○	○	○	○	
74. *Leucauge subgemmea* Boes. et Str.	검정백금거미			○	○	○	
※75. *Menosira ornata* Chikuni	가시다리거미(신칭)	○					
76. *Tetragnatha caudicula* (Karsch)	꼬리갈거미					○	
77. *Tetragnatha japonica* Boes. et Str.	민갈거미			○	○	○	

		Altitude (m)					
		1750–1500	1500–1300	1300–900	900–600	600–300	
78. *Tetragnatha lauta* YAGINUMA	비단갈거미				○	○	
※79. *Tetragnatha pinicola* L. KOCH	백금갈거미(신칭)		○				Pal.
80. *Tetragnatha praedonia* L. KOCH	장수갈거미				○	○	
12. *Uroctiedae* 납거미과							
81. *Uroctea compctilis* L. KOCH	왜납거미					○	
13. *Argyronetidae* 물거미과							
82. *Cybaeus mosanensis* PAIK et NAMKUNG	모산굴둑거미				○		
14. *Agelenidae* 가게거미과							
83. *Agelena jirisanensis* PAIK	지리풀거미					○	
84. *Agelena koreana* PAIK	고려풀거미				○	○	
85. *Agelena labyrinthica* (CLERCK)	대륙풀거미		○		○	○	Pal.
86. *Agelena limbata* L. KOCH	들풀거미		○	○	○	○	Or.
87. *Agelena opulenta* L. KOCH	애풀거미					○	
88. *Coelotes songminjae* PAIK et YAGINUMA	민자가게거미				○	○	
=*Coras insidiosus* L. KOCH							
89. *Coelotes vulgaris* PAIK.	한국깔대기거미				○		
15. *Oxyopidae* 스라소니거미과							
90. *Oxyopes koreanus* PAIK	분스라소니거미			○	○	○	
16. *Pisauridae* 닷거미과							
91. *Dolomedes sulfureus* L. KOCH	황닷거미			○	○	○	
92. *Pisaura lama* BOES. et STR	늪서성거미		○	○	○	○	
17. *Lycosidae* 늑대거미과							
93. *Pardosa astrigera* L. KOCH	별늑대거미				○		
=(*P. T-insignitd* BOES. et STR.)							
※94. *Pardosa lugubris* (WALCKENAER)	흰표늑대거미(신칭)	○					Pal.
95. *Pardosa sp.*		○					
96. *Pirata piraticus* (CLERCK)	늪산적거미					○	Hol.
97. *Pirata procurvus* (BOES. et STR.)	좀산적거미				○		
18. *Thomisidae* 게거미과							
98. *Misumenops japonicus* (BOES. et STR.)	각시꽃게거미		○	○		○	
99. *Misumenops tricuspidatus* (FABRICIUS)	꽃게거미	○			○	○	Pal.
100. *Oxytate striatipes* L. KOCH	줄연두게거미				○	○	
101. *Philodromus cespitum* (WALCKENAER)	흰새우게거미				○		Pal.
(=*Philodromus reussi* BOESENBERG)							
102. *Philodromus davidi* SCHENKEL.	집새우게거미					○	
103. *Pistius truncatus* (PALLAS)	오각게거미				○		Pal.
104. *Runcinia albostriata* BOES. et STR.	흰줄게거미					○	
105. *Synaema globosum japonicum* KARSCH	불자게거미		○			○	Pal.
106. *Thanatus formicinus* (CLERCK)	창게거미				○	○	Hol.
107. *Thomisus labefactus* KARSCH	살발이게거미				○	○	
108. *Tibellus tenellus* (L. KOCH)	넉점가게거미	○	○		○	○	
109. *Tmarus piger* (WALCKENAER)	범게거미				○		Pal.
110. *Xysticus atrimaculatus* BOES. et STR.	점게거미					○	Pal.
111. *Xysticus croceus* FOX	풀게거미	○	○	○		○	
※112. *Xysticus ephippiatus* SIMON	대륙게거미(신칭)		○		○	○	
113. *Xysticus saganus* BOES. et STR.	멍게거미					○	

		Altitude (m)					
		1750–1500	1500–1300	1300–900	900–600	600–300	
19. *Salticidae*	**깡충거미과**						
114. *Carrhotus detritus* Boes. et Str.	털보깡충거미					○	
115. *Euophrys undulatovittata* Boes. et Str.	번개깡충거미		○				
116. *Evarcha albaria* (L. Koch)	흰눈섭깡충거미				○		
117. *Hasarius doenitzi* Karsch(?)	되니쓰깡충거미				○		
118. *Jotus abnormis* Boes. et Str	갈색눈깡충거미(신칭)		○				
119. *Jotus difficilis* Boes. et Str.	점눈깡충거미				○		
120. *Marpissa elongata* (Karsch)	살깃깡충거미			○	○	○	
121. *Marpissa magister* (Karsch)	수검은깡충거미		○			○	
122. *Marpissa* sp. (A)					○		
123. *Menemerus pullus* (Karsch)	사층깡충거미				○		
124. *Myrmarachne japonica* (Karsch)	개미거미				○		
※125. *Plexippus incognitus* Doen. et Str.	흰줄깡충거미(신칭)	○	○	○			
126. *Rhene atrata* (Karsch)	까치깡충거미					○	
127. *Telamonia bifurcilinea* Boes. et Str.	황줄깡충거미				○		
20. *Clubionidae*	**염낭거미과**						
128. *Chiracanthium japonicum* Boes. et Str.	애어리엽낭거미			○	○	○	
129. *Chiracanthium lascivum* Karsch	제주어리엽낭거미					○	
130. *Chiracanthium unicium* Boes. et Str.	긴어리엽낭거미					○	
131. *Clubiona japonicola* Boes. et Str	노랑엽낭거미					○	
※132. *Clubiona phragmitis* C. L. Koch.	늪엽낭거미(신칭)	○	○	○			Pal.
133. *Clubiona* sp.(A)					○	○	
21. *Heteropo didae*	**농발거미과**						
134. *Heteropoda stellata* Schenkel	별농발거미				○		
135. *Micrommata virescens* (Clerck)	이슬거미	○	○	○			Pal.
Total 21 Families		18	38	39	72	79	
				135			

적 요

지리산은 해발 1915m인 남한 본토 최고인 명산이며 국립공원으로 지정된바도 있으나 아직 그 동물상에 대한 조사는 불충분한 바 있다.

1972년 8월 11일~14일의 4일간에 걸쳐 남궁 윤은 한라산 거미상과의 비교 검토를 위하여 지리산의 제 2 고봉인 반야봉과 제 3 고봉인 노고단을 중심으로 한 지리산 서남면인 "겉지리산"의 일부를 조사하였다.

한편 백의는 1971 년 7월 하순 화엄사, 노고단 및 피아골의 거미상에 대해 조사한 바 있다.

광대한 지리산의 전체적인 면모를 파악하기에는 미급한 조사였지만 대체적인 특징을 추찰할 수 있었기에 이에 보고코져 한다.

지리산 거미에 대하여는 백 갑용(1942~1972), 백운하의(1970) 등에 의해 18과 76종 (3 미확정종포함)이 보고된 바 있으나 채집기록에 불분명한 바가 있고, 그 환경이나 수직분포 등에 대하여는 언급된 바가 없었다.

금번 조사한 장소를 고도별로 보면 다음과 같다.

연곡사(300~400m) 화엄사(400~600m)
피아골(500~900m) 화엄사골(600~900m)
용수바위(900~1300m) 코재(900~1300m)
임걸령(1400~1500m) 노고단(1400~1550m)
반야봉(1550~1750m)

(1) 이 조사보고에서는 종전의 보고에서 기록이 분명한 것을 종합하여 21과 135종 (미확정종 6종 포함)의 목록을 작성하였다.

(2) 지리산 추가종 56종을 확인하였으며 그 중에서 한국 미기록종은 16 종이다. (목록에 ※표를 한 것)

(3) 미확정종은 개체특징이 분명한 것만 수록했으며 이들중 금후 연구로써 신종으로 기재될 것도 있다.

(4) 이번 조사의 결과로는 지리산의 거미상은 북방종 26종(20.2%) 남방종 8종(6.2%) 세계공통종이 3종(2.3%)으로 북방온대성(71.3%)의 경향이 짙으다.

(5) 고도분포는 반야봉 (1550~1750m)에서 18종(7.3%), 1400~1550m가 38종(15.5%), 900~1400m에서 39종(15.8%), 600~900m에서 72종(29.3%), 600m이하에서 79종(32.1%)으로 고도가 높아짐에 따라 종수가 점감되고 1300m 이상에 서식하는 것은 44종(32.6%)에 불과하였다.

(6) 지리산의 우점종은 대륙접시거미(*Prolinyphia emphana*)로 600m 이상부터 산정부에 걸쳐 널리 분포하며, 개체수에 있어서도 가장 많았다. 깡충거미과(Salticidae), 늑대거미과(Lycosidae)가 극히 적은 것도 특징적이라 하겠다.

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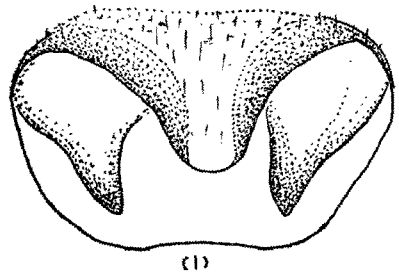
Explanation of Figures

(1) *Uloborus* sp. (A)	Epigynum	(11) *Yaginumia sia*	Epigynum
(2) *Conopistha fur*	〃	(12) *Menosira ornata*	〃
(3) *Arcuphantes* sp. (A)	〃	(13) *Tetragnatha pinicola*	Fang of Female
(4) *Diplocephaloides saganus*	〃	(14) *Pardosa lugubris*	Epigynum
(5) *Gnathonarium dentatum*	〃	(15) *Xysticus ephippiatus*	〃
(6) *Nematogmus sanguinolentus*	Male palp	(16) *Jotus abnormis*	〃
(7) *Araneus angulatus*	Epigynum	(17) *Marpissa* sp. (A)	〃
(8) *Araneus ishisawai*	〃	(18) *Plexippus incognitus*	Male palp
(9) *Araneus nordmanni*	〃	(19) *Clubiona phragmitis*	Epigynum
(10) *Araneus triguttatus*	〃	(20) *Clubiona* sp. (A)	〃



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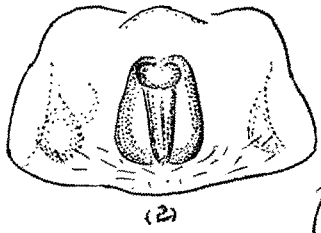

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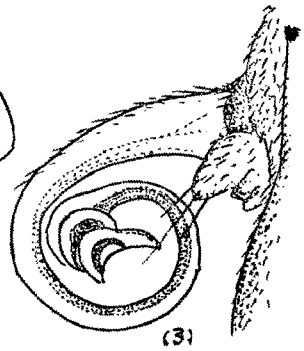

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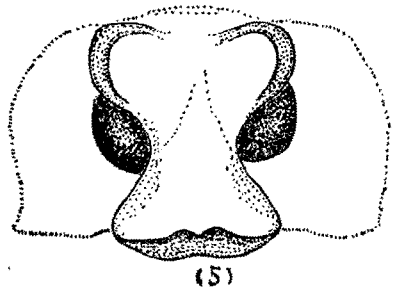

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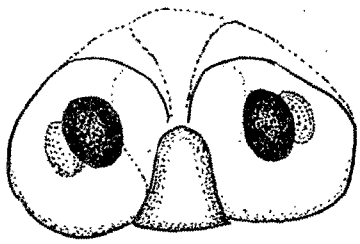

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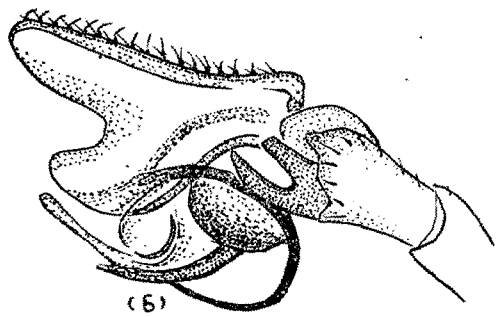

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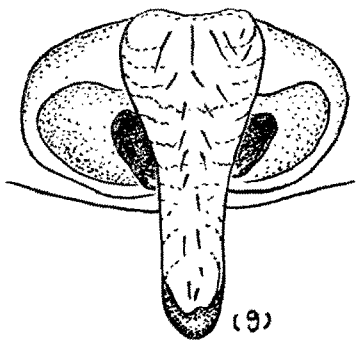

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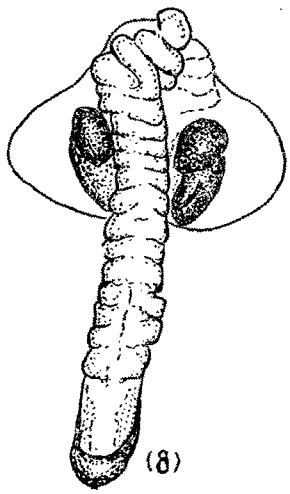

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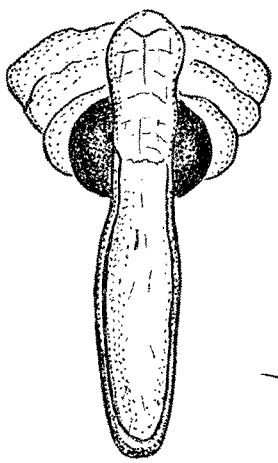

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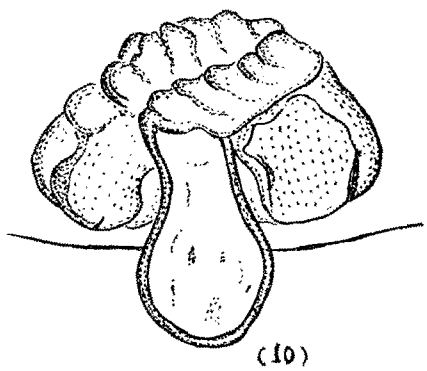

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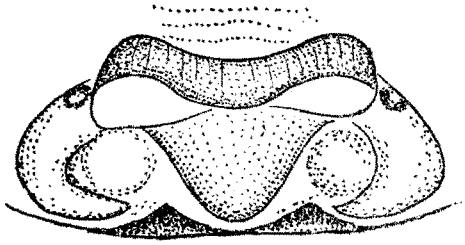

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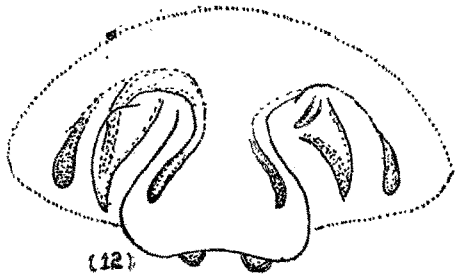

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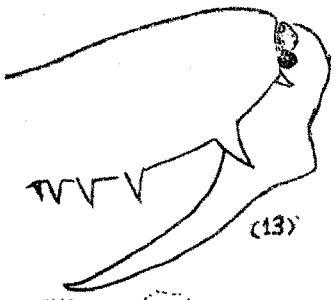

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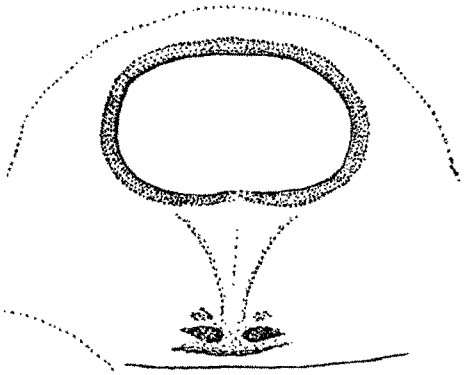

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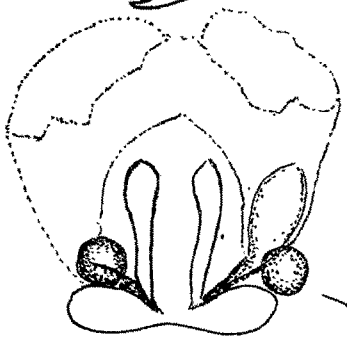

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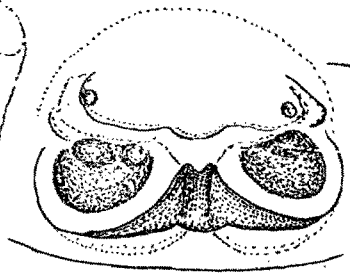

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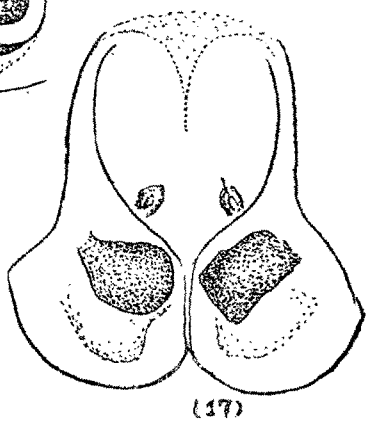

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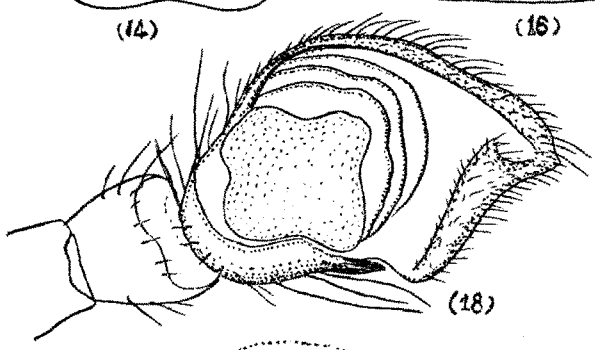

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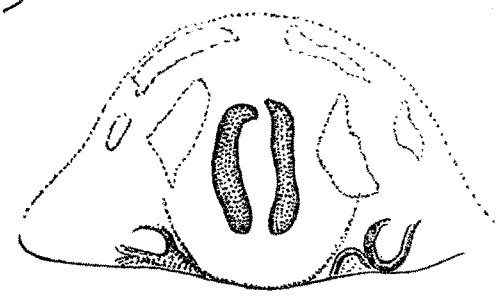

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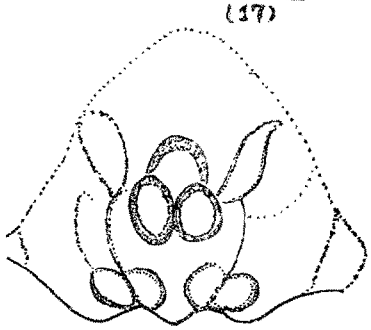

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