

강원도 육산패류의 분포

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= Abstract =

Distribution of the Land Snails in Kangweon-Do, Korea

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A study on the distribution of land snails in Kangweon-Do was carried out from May 1990 to July 1995. *Mirus* sp. and *Aegista gottschei kongoensis* were unrecorded in Korea and South Korea, respectively. As a result of this study, 21 families and 62 species of land snails are reported from Kangweon-Do, Korea.

Key words : Land snail, Kangweon-Do, Korea

서 론

한국의 육산 패류 분포에 관한 연구는 Möllendorff (1887), Pilsbry(1926), Shiba(1934), Kuroda(1936), Kuroda와 Miyanaga(1939), Kwon과 Habe(1979), Joo 등(1979), Kwon 등(1981,1990)에 의하여 이루어진 바 있으나, 강원도를 대상으로 이루어진 연구는 Kuroda와 Miyanaga(1939)의 금강산 지역에 관한 연구가 전부일 뿐 1945년 이후 강원도 전지역을 대상으로 육산 패류의 분포를 조사한 연구는 없다.

따라서 본 조사연구는 강원도 일대를 대상으로 육산 패류의 분포상을 알아보고자 시행되었다.

조사방법

저자 등은 1990년 5월부터 1995년 8월까지 강원도의 43 지점(Fig. 1)에서 육산 패류를 수집하여 동전하였다.

결 과 및 고 찰

전 조사 지점에서 채집된 육산 패류는 총 21과 62종으로서 Table 1과 Table 2에 정리하였다.

Kuroda와 Miyanaga(1939)는 이북 지역 내금강과 외금강에서 채집된 30종에서 4신종과 3신아종을 발표하였다. 이중 본 조사의 목록에 포함되어 있지 않은 *Neosuccinea horticola coreana*, *Strobilops coreana*, *Discus pauper*, *Hawaiiia minuscula*, *Limax flavus* Linne, 등의 5종은 국내(남한 지역)서식이 확인된 종이며 *Strobilops kongoensis*, *Ena* sp., *Petalochiamys subrejeta bella*, *Aegista diversa excellens*, *Bradybaena fragilis cerea*의 5종은 현재까지 남한 지역에서 출현되지 않은 종이다. *Aegista gottschei kongoensis*는 Kuroda와 Miyanaga(1939)가 외금강 지역에서 채집하여 신아종으로 발표한 종으로 급변 연구를 통해 남한 지역에서는 처음으로 설악산 신흥사 부근에서 채집이 되었다. Kwon(1981)은 한국산 육산패의 분포에 관한 연구에서 삼척, 강릉, 속초, 화천, 신철원 등의 강원도 지역에서 20종을 기록하였고, 이중 *Gastrocopta coreana*, *Strobilops coreana*, *Parakaliella serica*의 3종은 본 조사에서 확인되지 못한 종이다. 본

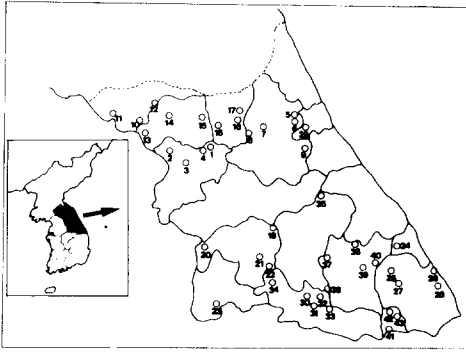


Fig. 1. Collecting sites of land snails in Kangweon-Do, Korea

St. 1 Chuncheon-shi Puksan-myon Mt. Samyong, St. 2 Chuncheon-shi Namsan-myon Mt. Bonghwa, St. 3 Chuncheon-shi Tongrae-myon Mt. Daeryong, St. 4 Chuncheon-shi Puksan-myon Mt. Obong, St. 5 Inje-gun Puk-myon Yongdae-ri Packdam valley, St. 6 Inje-gun Puk-myon Yongdae-ri sipisonyotang valley, St. 7 Inje-gun Inje-up Toksan-ri, St. 8 Inje-gun Inje-up Hapkang-ri, St. 9 Inje-gun Kirin-myon Chindong-ri, St. 10 Chorwon-gun Kalmal-up Sambuyon, St. 11 Chorwon-gun Tongsong-up Jiktang valley, St. 12 Chorwon-gun Kunnam-myon Maewollda valley, St. 13 Hwachon-gun Sanae-myon Sachang-ri, St. 14 Hwachon-gun Sangso-myon Kalmaegol, St. 15 Hwachon-gun Hwachon-up Pungsan-ri, St. 16 Yanggu-gun Tong-myon Hukok, St. 17 Yanggu-gun Tong-myon Palrang-ri, St. 18 Yanggu-gun Pangsang-myon Sangmuyong-ri, St. 19 Hoengsong-gun Tunnae-myon Mt. Taeg, St. 20 Hoengsong-gun Sowom-myon Pungsuwon, St. 21 Wonju-shi Mt. Chiak, St. 22 Wonju-shi Shillim-myon Songhwangrim, St. 23 Wonju-shi Munmak-myon Mt. Dukga, St. 24 Tonghae-shi Samhwa-tong Samhw-sa(temple), St. 25 Samchok-gun Miro-myon Chuneun-sa(temple), St. 26 Samchok-shi Songnae-Tong Chuksoru, St. 27 Samchok-gun Sinki-myon Dae-ri Hwanson cave, St. 28 Samchok-gun Kundok-myon Singhung-sa(temple), St. 29 Sokcho-shi Mt.sorak, St. 30 Yongwol-gun Puk-myon Dukan-sa(temple), St. 31 Yongwol-gun Yongwol-up Younghung-ri Boduk-sa(temple), St. 32 Yongwol-gun Koun-ri Orayon valley, St. 33 Yongwol-gun Yeunha-ri, St. 34 Yongwol-gun Suju-myon Pophung-ri Pophung-sa(temple), St. 35 Pyongchang-gun Jinbu-myon Wolchong-sa(temple), St. 36 Pyongchang-gun Mitam-myon Maha-ri, St. 37 Chongson-gun Chongson-up Mt. Kariwang, St. 38 Chongson-gun Puk-myon Mt. Nochu, St. 39 Chongson-gun Tong-myon Hwaam-ri, St. 40 Chongson-gun Tong-myon Kwangdaegok, St. 41 Taeback-shi Sodo-Tong Mt. Taeback, St. 42 Taeback-shi Changchuk-Tong Kumyongso, St. 43 Taeback-shi Yonhwa-Tong Mt. Yonhwa.

조사를 통하여 새로이 밝혀진 강원도 지역 서식 종은 *Chamalycaeus hirasei*, *Diplommatina p.changensis*, *Cavernacmella coreana*, *Carychium pessimum*, *Oxyloma hirasei*, *Strobilops hirasei*, *Zoogenetes harpa*, *Pyramidula micra*, *Mirus junensis*, *Mirus sp.*, *Euphaedusa fusaniana*, *Punctum depressum*, *Inciliaria fruhstorferi*, *Deroceras reticulatum*, *Nipponochlamys hypostilbe*, *Nipponochlamys fusanus*, *Chosenelix problematica*, *Aegista diversa*, *Nesiohelix samarangae* 등 19종으로 현재까지 강원도 지역에 서식하는 육산패류는 모두 62종으로 정리되며 각 종은 Kwon(1981)이 제안한 전형적인 북극계(Northern palaeoartic element)의 종들이다. 또한 강원도에 분포하는 육산패류 종수는 국내 육산패류 98종(Lee, 1994)의 63%에 해당한다. 특히 남북한지역 미기록 1종(*Mirus sp.*)과 남한지역 미기록 1종(*Aegista gottschei kongoensis*)이 발견되었다.

요 약

강원도 지역의 육산패류 분포상을 밝히기 위해 1990년 5월부터 1995년 8월까지 강원도 43개 지역에서 채집을 실시하였다. 국내 미기록 1종(*Mirus sp.*)과 남한지역 미기록 1종(*Aegista gottschei kongoensis*)이 발견되었다. 강원도에 서식하는 육산패류는 총 21과 62종으로 국내 육산패류의 63%에 해당하는 종수이다.

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Table 1. Land snail fauna in Kangweon-Do

Species	Present Study	K & M* (1939)	Kwon (1981)
MESOGASTROPODA			
Alycaeidae			
<i>Chamalycaeus cyclophoroides</i> (Pilsbry et Hirase, 1909)	●	●	●
<i>C. hirasei</i> (Pilsbry, 1900)	●		
Diplommatinidae			
<i>Diplommatina (Sinica) paxillus</i> Gredler, 1881	●	●	●
<i>D. (S.) p. changensis</i> Kwon et Lee, 1991	●		
<i>D. (S.) tyosenica</i> Kuroda et Miyanaga, 1939	●	●	
<i>Palaina (Cylindropalaina) pusilla</i> (Martens, 1877)	●	●	
Assimineidae			
<i>Cavernacmella coreana</i> Kwon et Lee, 1991	●		
BASOMMATOPHORA			
Carychiidae			
<i>Carychium pessimum</i> Pilsbry, 1901	●		
Succineidae			
<i>Neosuccinea horticola coreana</i> (Pilsbry, 1926)		●	
<i>Oxyloma hirasei</i> (Pilsbry, 1901)	●		
Cionellidae			
<i>Cionella lubrica</i> (MÜller, 1774)	●	●	
Gastrocoptidae			
<i>Gastrocopta(Sinalbinula) coreana</i> (Pilsbry, 1916)			●
Strobilopsidae			
<i>Strobilops (Eostrobilops) hirasei</i> (Pilsbry, 1908)	●		
<i>S. (E.) coreana</i> (Pilsbry, 1926)		●	●
<i>S. (E.) kongoensis</i> Kuroda et Miyanaga, 1939		●	
Valloniidae			
<i>Vallonia costata</i> (MÜller, 1774)	●		●
Acanthinulidae			
<i>Zoogenetes harpa</i> (Say, 1824)	●		
Pleurodiscidae			
<i>Pyramidula (Pyramidulops) micra</i> Pilsbry, 1926	●		
Enidae			
<i>Mirus coreanus</i> (Pilsbry et Hirase, 1908)	●		●
<i>M. junensis</i> Kwon et Lee, 1991	●		
<i>M. sp.</i>	●		
<i>Ena sp.</i>		●	
Clausillidae			
<i>Euphaedusa fusaniana</i> (Pilsbry et Hirase, 1908)	●		
<i>Paganizaptyx miyanagai</i> (Kuroda, 1936)	●	●	●
Subulinidae			
<i>Allopeas (Clavulinum) kyotoense</i> (Pilsbry et Hirase, 1904)	●	●	●
<i>A. (C.) pyrgula</i> (Schmacker et Böttger, 1891)	●		●
Punctidae			
<i>Punctum depressum</i> Kuroda et Hukuda, 1944	●		
Discidae			
<i>Discus pauper</i> (Gould, 1859)		●	

Species	Present Study	K & M* (1939)	Kwon (1981)
Zonitidae			
<i>Hawaiiia minuscula</i> (Binney, 1840)		●	
<i>Retinella radiatula radiatula</i> (Pilsbry & Hirase, 1904)		●	
<i>R. r. coreana</i> Kwon et Lee, 1991	●		
Philomycidae			
<i>Philomycus</i> sp.		●	
<i>Incilaria bilineata</i> (Benson, 1842)	●		●
<i>I. fruhstorferi</i> (Collinge, 1901)	●		
Limacidae			
<i>Limax flavus</i> Linne, 1758		●	
<i>Deroceras reticulatum</i> Müller, 1774	●		
Helixarionidae			
<i>Bekkochlamys subrejeeta</i> (Pilsbry et Hirase, 1908)	●		●
<i>Bekkochlamys subrejeeta bella</i> (Pilsbry, 1926)		●	
<i>Trochochlamys crenulata</i> (Gude, 1901)	●	●	
<i>Gastrodontella stenogyra</i> (A.Adams, 1868)	●	●	
<i>Parakaliella coreana</i> (Möllendorff, 1887)	●	●	●
<i>P. serica</i> (Pilsbry, 1926)			●
<i>Discoconulus sinapidium</i> (Reinhardt, 1877a)	●	●	
<i>Nipponochlamys hypostilbe</i> (Pilsbry et Hirase, 1909)	●		
<i>N. fusanus</i> (Hirase, 1908)	●	●	
Bradybaenidae			
<i>Acusta despecta sieboldiana</i> (Pfeiffer, 1850)	●		●
<i>Bradybaena similaris</i> (Férussac, 1822)			●
<i>B. fragilis cerea</i> Kuroda et Miyanaga, 1939		●	
<i>Koreanohadra kurodana</i> (Pilsbry, 1926)	●		●
<i>Chosenelix problematica</i> (Pilsbry, 1926)	●		
<i>Lepidopisum verrucosum</i> (Reinhardt, 1877b)	●		●
<i>Trishoplita pumilio</i> Pilsbry et Hirase, 1909	●	●	
<i>T. ottoi</i> Pilsbry, 1926	●	●	
<i>Aegista gottschei</i> (Möllendorff, 1887)	●		●
<i>A. g. kongoensis</i> (Kuroda et Miyanaga, 1939)	●	●	
<i>A. pyramidata</i> (Pilsbry, 1926)	●	●	
<i>A. p. hebes</i> (Pilsbry, 1926)	●		
<i>A. tenuissima</i> (Pilsbry et Hirase, 1908)	●	●	●
<i>A. chosenica</i> (Pilsbry, 1926)	●		●
<i>A. (Plectotropis) diversa</i> (Kuroda et Miyanaga, 1936)	●		
<i>A. (P.) diversa excellens</i> (Kuroda et Miyanaga, 1939)		●	
<i>Nesiohelix samarangae</i> (Kuroda et Miyanaga, 1943)	●		

* Kuroda & Miyanaga

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Table 2. Distribution of land snails at 43 stations in Kangweon-Do, Korea

Species \ Site	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
<i>Chamaelycaeus cyclophoroides</i>		•																				
<i>Chamaelycaeus hirasei</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Diplommatina paxillus</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Diplommatina p. changensis</i>																						
<i>Diplommatina tyosenica</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Palatina pusilla</i>																						
<i>Cavernacmella coreana</i>																						
<i>Carychium pessimum</i>																						
<i>Oxyloma hirasei</i>									•													
<i>Clonella ludrica</i>																						
<i>Strobilops hirasei</i>																						
<i>Ialonia costata</i>																						
<i>Zoogenetes harpa</i>										•	•											
<i>Pyramidula micra</i>																						
<i>Mirus coreanus</i>																						
<i>Mirus junensis</i>									•													
<i>Mirus sp.</i>																						
<i>Euphaedusa fusaniana</i>																						
<i>Paganizaptyx miyanagai</i>																						
<i>Allopeas kyotoense</i>	•									•												
<i>Allopeas pyrgula</i>																						
<i>Punctum depressum</i>																						
<i>Retinella radiatula coreana</i>																						
<i>Inciilaria bilineata</i>																						
<i>Inciilaria fruhstorferi</i>																						
<i>Deroceas reticulatum</i>																						
<i>Bekkochlamys subrejeta</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Trochochlamys crenulata</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Gastrodontella stenogyra</i>																						
<i>Parakallielia coreana</i>																						
<i>Discoconulus sinapidium</i>						•																
<i>Nipponochlamys hypostillibe</i>																						
<i>Nipponochlamys fusanus</i>																						
<i>Acusta despecta steboldiana</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Koreanohadra kurodana</i>																						
<i>Chosenelix problematica</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Lepidopisum verrucosum</i>																						
<i>Trishopllita pumillio</i>																						
<i>Trishopllita ottoi</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Aegista gottschei</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Aegista & kongensis</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Aegista pyramidata</i>																						
<i>Aegista tenuissima</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Aegista chosensica</i>																						
<i>Aegista diversa</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Vesitellix sama</i>																						

Continued

Species \ Site	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
<i>Chamaelycaeus cyclophoroides</i>		•		•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Chamaelycaeus hirasei</i>																						
<i>Diplomatina paxillius</i>		•		•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Diplomatina p. changensis</i>																						
<i>Diplomatina tyosenica</i>																						
<i>Palaina pusilla</i>																						
<i>Cavernacella coreana</i>						•																
<i>Carychium pessimum</i>																						
<i>Oxytoma hirasei</i>		•																				
<i>Cionella lubrica</i>			•																			
<i>Strobilops hirasei</i>									•													
<i>Lallonia costata</i>																						
<i>Zoogenetes harpa</i>																						
<i>Pyramidula micra</i>																						
<i>Mirus coreanus</i>																						
<i>Mirus junensis</i>																						
<i>Mirus sp.</i>																						
<i>Euphaedusa fusaniانا</i>																						
<i>Paganizaptyx miyanagai</i>																						
<i>Allopeas kyotoense</i>		•		•																		
<i>Allopeas pyrgula</i>		•																				
<i>Punctum depressum</i>																						
<i>Retinella radiatula coreana</i>																						
<i>Inciilaria bilineata</i>																						
<i>Inciilaria trunstorferi</i>		•		•																		
<i>Deroceras reticulatum</i>																						
<i>Bekkochlams subrejepta</i>		•																				
<i>Trochochlams crenulata</i>																						
<i>Gastrodonteella stenogyra</i>																						
<i>Parakaliella coreana</i>																						
<i>Discoconulus sinapidium</i>																						
<i>Nipponochlamys hypostitilbe</i>																						
<i>Nipponochlamys fusanus</i>																						
<i>Acusta despecta sieboldiana</i>																						
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<i>Aegista gottschei</i>		•																				
<i>Aegista g. kongensis</i>																						
<i>Aegista pyramidata</i>																						
<i>Aegista pyramidata hebes</i>																						
<i>Aegista tenuissima</i>																						
<i>Aegista chosonica</i>																						
<i>Aegista diversa</i>																						
<i>Vesitohelix samarangae</i>																						

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