

**Information about Professor Koteja's scale insects collection
(Hemiptera: Coccoidea)**

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The last will of Professor JAN KOTEJA was to deliver his collection of Coccidea to the Department of Zoology, University of Silesia. The collection contains over 4500 microscope slides (some with more than 1 specimen); there are also dry specimens and preparations kept in alcohol. It comprises scale insects from almost all over the world, e.g., from Japan, India, USA, Australia, Greece, Canada, countries of the former Yugoslavia, Czechoslovakia and the Soviet Union. Most of the species come from Poland, as Professor conducted very intensive investigations in order to study the biodiversity of scale insects which can be found in this country. The researches involved regions of the Tatra Mountains, Świętokrzyskie Mts., Roztocze, and others. The collection contains species which were found in greenhouses too, mainly from the glasshouse of the Botanical Garden in Cracow.

There are 234 species gathered in 14 families. The largest is the family Pseudococcidae (Tab). There are also several very old microscope slides from the beginning of the 20th century were found. We used the Data Base of the Scale Insects of the World (<http://www.sel.barc.usda.gov/scalenet/scalenet.htm>) to update the species names.

There is a type material in the collection:

- Pulvinaria terrestris* BORCHSENIUS, 1953 – paratypes, 2 females;
- Eriococcus podhalensis* DZIEDZICKA et KOTEJA, 1971 – paratypes, 8 females;
- Luzulaspis crassispina* BORCHSENIUS, 1959 – paratypes, 2 females;
- Luzulaspis americana* KOTEJA et HOWELL, 1979 – paratype, 1 female;
- Luzulaspis kosztarabi* KOTEJA et KOZÁR, 1979 – paratype, 1 female
- Luzulaspis nemorosa* KOTEJA, 1966 – paratypes, 4 females and 1 larva;
- Luzulaspis minima* KOTEJA et HOWELL, 1979 – paratype, 1 female;

Luzulaspis grandis BORCHSENIUS, 1952 – as *Luzulaspis pieninica* (KOTEJA et ŽAK-OGAZA, 1966) – paratypes, 6 females;
Symonicoccus stipae KOTEJA et BROOKES, 1981 – paratype, 1 female;
Symonicoccus abberans KOTEJA et BROOKES, 1981 – paratype, 1 female;
Longicoccus psammophilus (KOTEJA, 1971) – as *Micrococcus psammophilus* KOTEJA, 1971 – paratypes, 7 females.

Table 1. Coccidea species in Professor KOTEJA's collection

Family	Species names	Number of the slides
Asterolecaniidae	<i>Asterodiaspis japonica</i> (COCKERELL, 1900)	1
	<i>Asterodiaspis quercicola</i> (BOUCHÉ, 1851)	27
	<i>Asterodiaspis variolosa</i> (RATZEBURG, 1870)	22
	<i>Bambusaspis bambusae</i> (BOISDUVAL, 1868)	1
	<i>Hyalococcus mali</i> BORCHSENIUS, 1950	1
	<i>Planchonia arabis</i> SIGNORET, 1876	4
Kermesidae	<i>Kermes quercus</i> (LINNAEUS, 1758)	10
	<i>Nidularia pulvinata</i> (PLANCHON, 1864)	8
Beesoniidae	<i>Beesonia napiformis</i> (KUWANA, 1914)	42
Dactylopiidae	<i>Dactylopius confusus</i> (COCKERELL, 1893)	2
	<i>Dactylopius opuntiae</i> (COCKERELL, 1896)	7
Cerococcidae	<i>Asterococcus muratae</i> (KUWANA, 1907)	1
	<i>Cerococcus cycliger</i> GOUX, 1932	3
	<i>Cerococcus parrotti</i> (HUNTER, 1899)	2
	<i>Cerococcus perowskiae</i> ARCHANGELSKAYA, 1931	1
	<i>Pollinia pollini</i> (COSTA, 1857)	1
Ortheziidae	<i>Arctorthezia cataphracta</i> (OLAFSEN, 1772)	2
	<i>Newsteadia floccosa</i> (DE GEER, 1778)	106
	<i>Orthezia urticae</i> (LINNAEUS, 1758)	41
	<i>Ortheziola vej dovskyi</i> ŠULC, 1895	51
Margarodidae	<i>Coelostomidia jenniferae</i> MORALES, 1991	2
	<i>Coelostomidia montana</i> GREEN, 1929	1
	<i>Coelostomidia pilosa</i> (MASKELL, 1891)	4
	<i>Coelostomidia zealandica</i> (MASKELL, 1880)	3
	<i>Drosicha stebbingii</i> (STEBBING, 1902)	20
	<i>Icerya purchasi</i> MASKELL, 1920	26
	<i>Kuwania pasaniae</i> BORCHSENIUS, 1960	2

Family	Species names	Number of the slides
Margarodidae, et'd.	<i>Marchalina hellenica</i> (GENNADIUS, 1883)	18
	<i>Matsucoccus pini</i> GREEN, 1925	37
	<i>Neomargarodes chondrillae</i> ARCHANGELSKAYA, 1935	1
	<i>Neosteingelia texana</i> MORRISON, 1927	3
	<i>Platycoelostoma compressa</i> (MASKELL, 1892)	1
	<i>Porphyrophora crithmi</i> (GOUX, 1938)	6
	<i>Porphyrophora polonica</i> (LINNAEUS, 1758)	12
	<i>Steingelia gorodetskia</i> NASONOV, 1908	151
	<i>Ultracolostoma assimile</i> (MASKELL, 1890)	1
	<i>Ultracolostoma dracophylli</i> MORALES, 1991	2
	<i>Xylococculus betulae</i> (PERGANDE in HUBBARD et PERGANDE, 1898)	2
	<i>Xylococcus filiferus</i> LÖW, 1882	11
	<i>Xylococcus japonicus</i> OGUMA, 1919	55
	<i>Xylococcus macrocarpa</i> (COLEMAN, 1908)	3
	Micrococcidae	<i>Micrococcus bodenheimeri</i> BYTYNSKII-SALZ, 1961
Stictococcidae	<i>Stictococcus intermedius</i> NEWSTEAD, 1917	1
Lecanodiaspididae	<i>Cosmococcus albizziae</i> BORCHSENIUS, 1960	1
Pseudococcidae	<i>Antonina crawi</i> COCKERELL, 1900	22
	<i>Antonina graminis</i> (MASKELL, 1897)	1
	<i>Antonina pretiosa</i> FERRIS, 1953	3
	<i>Atrococcus cracens</i> WILLIAMS, 1962	121
	<i>Atrococcus paludinus</i> (GREEN, 1921)	1
	<i>Balanococcus boratynskii</i> WILLIAMS, 1962	13
	<i>Balanococcus singularis</i> (SCHMUTTERER, 1952)	44
	<i>Boreococcus ingricus</i> DANZIG, 1960	17
	<i>Brevennia pulveraria</i> (NEWSTEAD, 1892)	55
	<i>Chaetococcus bambusae</i> (MASKELL, 1893)	4
	<i>Chaetococcus sulcii</i> (GREEN, 1934)	22
	<i>Coccura comari</i> (KUNOW, 1880)	5
	<i>Coccura convexa</i> BORCHSENIUS, 1949	1
	<i>Coccura suwakoensis</i> (KUWANA et TOYODA, 1915)	2
	<i>Dysmicoccus angustus</i> (EZZAT et MCCONNELL, 1956)	1
	<i>Dysmicoccus pauper</i> DANZIG, 1971	1
	<i>Dysmicoccus walkeri</i> (NEWSTEAD, 1891)	29
	<i>Dysmicoccus wistariae</i> (GREEN, 1923)	1
<i>Fonscolombia europaea</i> (NEWSTEAD, 1897)	17	

Family	Species names	Number of the slides
Pseudococcidae, ct'd.	<i>Fonscolombia tomlinii</i> (NEWSTEAD, 1892)	9
	<i>Heliococcus bohemicus</i> ŠULC, 1912	10
	<i>Heliococcus danzigae</i> BAZAROV, 1974	5
	<i>Heliococcus slavonicus</i> BORCHSENIUS et TEREZNIKOVA, 1959	8
	<i>Heterococcus nudus</i> (GREEN, 1926)	123
	<i>Lacombia dactyloni</i> (BODENHEIMER, 1935)	4
	<i>Longicoccus festucae</i> (KOTEJA, 1971)	3
	<i>Longicoccus psammophilus</i> (KOTEJA, 1971)	7
	<i>Metadenopus festucae</i> ŠULC, 1933	31
	<i>Mirococcopsis stipae</i> BORCHSENIUS, 1949	5
	<i>Nipaecoccus nipae</i> (MASKELL, 1893)	10
	<i>Peliococcopsis parvicerarius</i> (GOUX, 1937)	11
	<i>Peliococcus balteatus</i> (GREEN, 1928)	16
	<i>Peliococcus calluneti</i> (LINDINGER, 1912)	64
	<i>Peliococcus manifactus</i> BORCHSENIUS, 1949	3
	<i>Phenacoccus aceris</i> (SIGNORET, 1875)	93
	<i>Phenacoccus bicerarius</i> BORCHSENIUS, 1949	1
	<i>Phenacoccus dearnessi</i> KING, 1901	3
	<i>Phenacoccus evelinae</i> (TEREZNIKOVA, 1968)	1
	<i>Phenacoccus gossypii</i> TOWNSEND et COCKERELL, 1898	6
	<i>Phenacoccus hordei</i> (LINDEMAN, 1886)	27
	<i>Phenacoccus interruptus</i> GREEN, 1923	22
	<i>Phenacoccus piceae</i> (LÖW, 1883)	46
	<i>Phenacoccus pumilus</i> KIRITSHENKO, 1931	2
	<i>Planococcus citri</i> (RISSO, 1813)	22
	<i>Planococcus vovae</i> (NASONOV, 1909)	21
	<i>Pseudococcus longispinus</i> (TARGIONI-TOZZETTI, 1867)	1
	<i>Pseudococcus maritimus</i> (EHRHORN, 1900)	12
	<i>Puto arctostaphyli</i> FERRIS, 1950	6
	<i>Puto caucasicus</i> HADZIBEJLI, 1956	1
	<i>Puto mexicanus</i> (COCKERELL, 1893)	19
	<i>Puto orientalis</i> DANZIG, 1978	1
	<i>Puto pilosellae</i> (ŠULC, 1898)	42
<i>Puto pricei</i> MC KENZIE, 1960	2	
<i>Puto superbus</i> (LEONARDI, 1907)	2	
<i>Rhizoecus dianthi</i> GREEN, 1926	1	
<i>Rhizoecus vitis</i> BORCHSENIUS, 1949	8	
<i>Rhodania occulta</i> SCHMUTTERER, 1952	9	
<i>Rhodania porifera</i> GOUX, 1935	23	

Family	Species names	Number of the slides
Pseudococcidae, ct'd.	<i>Trabutina crassispinosa</i> BORCHSENIUS, 1936	3
	<i>Trionymus aberrans</i> GOUX, 1938	17
	<i>Trionymus caricis</i> (MCCONNELL, 1941)	5
	<i>Trionymus hamberdi</i> (BORCHSENIUS, 1949)	5
	<i>Trionymus isfarensis</i> (BORCHSENIUS, 1949)	185
	<i>Trionymus multivorus</i> (KIRITCHENKO, 1936)	1
	<i>Trionymus newsteadi</i> (GREEN, 1917)	26
	<i>Trionymus placatus</i> (BORCHSENIUS, 1949)	9
	<i>Trionymus perrisii</i> (SIGNORET, 1875)	291
	<i>Trionymus radicum</i> (NEWSTEAD, 1895)	37
	<i>Trionymus subterraneus</i> (NEWSTEAD, 1893)	15
	<i>Trionymus thulensis</i> GREEN, 1931	32
	<i>Trionymus tomlini</i> (GREEN, 1925)	43
	Coccidae	<i>Ceroplastes ceriferus</i> (FABRICIUS, 1798)
<i>Ceroplastes floridensis</i> COMSTOCK, 1881		2
<i>Ceroplastes rusci</i> (LINNAEUS, 1758)		10
<i>Ceroplastes sinensis</i> DEL GUERICO, 1900		3
<i>Coccus hesperidum</i> LINNAEUS, 1758		12
<i>Coccus longulus</i> (DOUGLAS, 1887)		5
<i>Coccus pseudomagnoliarum</i> (KUWANA, 1914)		6
<i>Eriopeltis coloradensis</i> COCKERELL, 1905		1
<i>Eriopeltis festucae</i> (BOYER DE FONSCOLOMBE, 1834)		79
<i>Eriopeltis lichtensteini</i> SIGNORET, 1877		44
<i>Eriopeltis stammeri</i> SCHMUTTERER, 1952		108
<i>Eucalymnatus tessellatus</i> (SIGNORET, 1873)		12
<i>Eulecanium ciliatum</i> (DOUGLAS, 1891)		13
<i>Eulecanium douglasi</i> (ŠULC, 1895)		6
<i>Eulecanium franconicum</i> (LINDINGER, 1907)		22
<i>Eulecanium sericeum</i> (LINDINGER, 1906)		5
<i>Eulecanium tiliae</i> (LINNAEUS, 1758)		19
<i>Exaeretopus agropyri</i> (HADZIBEJLI, 1960)		6
<i>Exaeretopus orientalis</i> DANZIG, 1975		3
<i>Filippia follicularis</i> (TARGIONI-TOZZETTI, 1867)		2
<i>Lecanopsis formicarum</i> NEWSTEAD, 1893		339
<i>Lecanopsis subterranea</i> (GOMEZ-MENOR ORTEGA, 1948)		6
<i>Lichtensia viburni</i> SIGNORET, 1873		9
<i>Luzulaspis americana</i> KOTEJA et HOWELL, 1979		1
<i>Luzulaspis bisetosa</i> BORCHSENIUS, 1952		1
<i>Luzulaspis crassispina</i> BORCHSENIUS, 1959		2

Family	Species names	Number of the slides
Coccidae, ct'd.	<i>Luzulaspis dactylis</i> GREEN, 1928	6
	<i>Luzulaspis frontalis</i> GREEN, 1928	210
	<i>Luzulaspis grandis</i> BORCHSENIUS, 1952	35
	<i>Luzulaspis kosztarabi</i> KOTEJA et KOZÁR, 1979	1
	<i>Luzulaspis luzulae</i> (DUFOUR, 1864)	183
	<i>Luzulaspis minima</i> KOTEJA et HOWELL, 1979	1
	<i>Luzulaspis nemorosa</i> KOTEJA, 1966	169
	<i>Luzulaspis scotica</i> GREEN, 1926	73
	<i>Nemolecanium graniformis</i> (WÜNN, 1921)	3
	<i>Palaeolecanium bituberculatum</i> (SIGNORET, 1873)	9
	<i>Parafairmairia gracilis</i> GREEN, 1916	95
	<i>Parafairmaria bipartita</i> (SIGNORET, 1874)	54
	<i>Parthenolecanium corni</i> BOUCHÉ, 1844	58
	<i>Parthenolecanium pomeranicum</i> (KAWECKI, 1954)	2
	<i>Parthenolecanium rufulum</i> (COCKERELL, 1903)	23
	<i>Phyllostroma myrtilli</i> (KALTENBACH, 1874)	64
	<i>Physokermes piceae</i> (SCHRANK, 1801)	5
	<i>Poaspis intermedia</i> (GOUX, 1939)	2
	<i>Poaspis jahandiezi</i> (BALACHOWSKY, 1932)	1
	<i>Poaspis kondarensis</i> (BORCHSENIUS, 1952)	3
	<i>Protopulvinaria pyriformis</i> (COCKERELL, 1894)	1
	<i>Psilococcus ruber</i> BORCHSENIUS, 1952	169
	<i>Pulvinaria floccifera</i> (WESTWOOD, 1870)	1
	<i>Pulvinaria psidii</i> MASKELL, 1893	5
	<i>Pulvinaria terrestris</i> BORCHSENIUS, 1953	2
	<i>Pulvinaria vitis</i> (LINNAEUS, 1758)	60
	<i>Rhizopulvinaria artemisiae</i> (SIGNORET, 1873)	3
	<i>Saissetia coffeae</i> (WALKER, 1852)	30
	<i>Saissetia oleae</i> (OLIVIER, 1791)	5
	<i>Scythia craniumequinum</i> KIRITCHENKO, 1938	3
	<i>Sphaerolecanium prunastri</i> (BOYER DE FONSCOLOMBE, 1834)	18
	<i>Spilococcus sequoiae</i> (COLEMAN, 1901)	5
	<i>Stotzia maxima</i> BORCHSENIUS, 1957	3
	<i>Symonicoccus aberrans</i> KOTEJA et BROOKES, 1981	1
	<i>Symonicoccus australis</i> (MASKELL, 1893)	1
	<i>Symonicoccus chorizandrae</i> KOTEJA et BROOKES, 1981	1
	<i>Symonicoccus stipae</i> KOTEJA et BROOKES, 1981	1
	<i>Vittacoccus longicornis</i> (GREEN, 1916)	44

Family	Species names	Number of the slides
Eriococcidae	<i>Cryptococcus fagisuga</i> LINDINGER, 1957	2
	<i>Eriococcus abeliceae</i> KUWANA, 1902	4
	<i>Eriococcus aceris</i> (SIGNORET, 1875)	21
	<i>Eriococcus agropyri</i> (BORCHSENIUS, 1949)	21
	<i>Eriococcus azaleae</i> COMSTOCK, 1881	1
	<i>Eriococcus baldonensis</i> (RASINA, 1966)	1
	<i>Eriococcus brachypodii</i> (BORCHSENIUS et DANZIG, 1966)	18
	<i>Eriococcus cantium</i> WILLIAMS, 1985	3
	<i>Eriococcus crispus</i> (BOYER DE FONSCOLOMBE, 1834)	1
	<i>Eriococcus cynodontis</i> KIRITCHENKO, 1940	7
	<i>Eriococcus danzigae</i> (MILLER et GIMPEL, 1996)	2
	<i>Eriococcus glyceriae</i> GREEN, 1921	48
	<i>Eriococcus gouxi</i> (BALACHOWSKY, 1954)	8
	<i>Eriococcus greeni</i> NEWSTEAD, 1898	73
	<i>Eriococcus herbaceus</i> DANZIG, 1962	84
	<i>Eriococcus inermis</i> GREEN, 1915	57
	<i>Eriococcus insignis</i> NEWSTEAD, 1891	192
	<i>Eriococcus munroi</i> (BORATYNSKY, 1962)	61
	<i>Eriococcus podhalensis</i> DZIEDZICKA et KOTEJA, 1971	8
	<i>Eriococcus pseudinsignis</i> GREEN, 1921	185
	<i>Eriococcus rubrus</i> (MATESOVA, 1960)	5
	<i>Eriococcus sasae</i> (DANZIG, 1975)	1
	<i>Eriococcus spurius</i> (MODEER, 1778)	20
	<i>Eriococcus ulmarius</i> (DANZIG, 1975)	1
	<i>Eriococcus williamsi</i> DANZIG, 1987	1
	<i>Kuwanina parva</i> (MASKELL, 1897)	31
	<i>Pseudochermes fraxini</i> (KALTENBACH, 1860)	50
Diaspididae	<i>Aonidia lauri</i> (BOUCHÉ, 1833)	5
	<i>Aonidomytilus crookiae</i> (FERRIS, 1954)	1
	<i>Aspidiotus nerii</i> BOUCHÉ, 1833	25
	<i>Aulacaspis rosae</i> (BOUCHÉ, 1833)	5
	<i>Carulaspis juniperi</i> (BOUCHÉ, 1869)	14
	<i>Carulaspis minima</i> (SIGNORET, 1896)	1
	<i>Chionaspis salicis</i> (LINNAEUS, 1758)	67
	<i>Circulaspis fistulata</i> (FERRIS, 1921)	1
	<i>Diaspidiotus ostreaeformis</i> (CURTIS, 1843)	9
	<i>Diaspidiotus perniciosus</i> (COMSTOCK, 1881)	1
	<i>Diaspis boisduvalii</i> SIGNORET, 1869	4
	<i>Dynaspidotus abietis</i> (SCHRANK, 1776)	17

Family	Species names	Number of the slides
Diaspididae ct'd.	<i>Hemiberlesia rapax</i> (COMSTOCK, 1881)	9
	<i>Howardia biclavis</i> (COMSTOCK, 1883)	4
	<i>Lepidosaphes conchiformis</i> (GMELIN, 1790)	1
	<i>Lepidosaphes newsteadi</i> (ŠULC, 1895)	2
	<i>Lepidosaphes ulmi</i> (LINNAEUS, 1758)	117
	<i>Leucaspis lowi</i> COLVEE, 1882	44
	<i>Leucaspis pini</i> (HARTIG, 1830)	5
	<i>Leucaspis pusilla</i> LÖW, 1883	6
	<i>Melanaspis obscura</i> (COMSTOCK, 1881)	1
	<i>Niveaspis fenestrata</i> FERRIS, 1941	1
	<i>Pinnaspis aspidistrae</i> (SIGNORET, 1869)	3
	<i>Prodiaspis tamaricicola</i> (MALENOTTI, 1916)	1
	<i>Pseudaulacaspis pentagona</i> (TARGIONI-TOZZETTI, 1886)	1
	<i>Quadraspidiotus bavaricus</i> (LINDINGER, 1912)	10
	<i>Rhizaspidiotus canariensis</i> (LINDINGER, 1911)	6
	<i>Targionia vitis</i> (SIGNORET, 1876)	2
	<i>Velataspis cornigera</i> FERRIS, 1941	1

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