

# A CATALOGUE OF THE ACARINA, OR MITES, OF THE UNITED STATES.

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## INTRODUCTION.

In 1886 Prof. Herbert Osborn and Prof. L. M. Underwood published, in the *Canadian Entomologist*, a preliminary list of the species of Acarina of North America. It included 99 species in 28 genera. The species described prior to that time were by various entomologists, and in only one case, that of Professor Garman, had a single author done any considerable work in one genus. During the past twenty years several naturalists have described a large number of new species. Professor Wolcott, Doctor Koenike, and Miss Marshall, in the water-mites; Doctor Haller and Professor Tyrrell, in the bird-mites; Professor Neumann, in the ticks; and myself in various families, are chiefly responsible for this increase. At present there are 450 species, grouped in 133 genera, known from the United States; yet this is probably less than a third of our entire acarid fauna.

So little is known regarding the distribution of the species, most of which have been described from the Eastern States, that I have not given localities. In identifying species one must now compare the specimen with descriptions of all the species, irrespective of locality. The generic synonyms are given in the index. In the arrangement of families I have followed the common usage.

It is hoped that by bringing together these references an interest will be stimulated among others that will result in greater work in the Acarina, one of the most important groups from either the biologic or economic standpoint.

A synopsis of the genera of the mites and a list of the literature down to 1904 will be found in a *Treatise on the Acarina or Mites*, published in the *Proceedings, U. S. National Museum*, XXVIII, pages 1-114.

## CATALOGUE OF THE ACARINA.

## Family EUPODIDÆ.

## RHAGIDIA.

*Rhagida* THORELL, Öfvy. Svenska Akad. Förh., XXVIII, 1871, p. 700.

*R. cavicola* BANKS, Amer. Nat., 1897, p. 382.

*R. pallida* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 222.

## LINOPODES.

*Linopodes* KOCH, Crust. Myr. Arach. Deutsch., fasc. 4, 1836.

*L. antennæpes* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 221.

*L. mammouthia* BANKS, Amer. Nat., 1897, p. 383.

## EUPODES.

*Eupodes* KOCH, Crust. Myr. Arach. Deutsch., fasc. 4, 1836.

*E. marinus* BANKS, Trans. Amer. Ent. Soc., XXIII, 1896, p. 75.

*E. variabilis* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 221.

## NOTOPHALLUS.

*Notophallus* CANESTRINI, Prosp. Acarof. Ital., II, 1886, p. 202.

*N. dorsalis* BANKS, Canad. Entom., 1902, p. 172.

## TYDEUS.

*Tydeus* KOCH, Crust. Myr. Arachn. Deutsch., fasc. 4, 1836.

*T. gloveri* ASHMEAD, Canad. Entom., 1879, p. 159 (*Tyroglyphus*).

## Family BDELLIDÆ.

## BDELLA.

*Bdella* LATREILLE, Précis Caract. Ins., 1796, p. 180.

*B. borealis* KRAMER and NEUMAN, Acariden während Vega Exped., 1883, p. 525.

*B. californica* BANKS, Proc. Calif. Acad. Science, (3), III, 1904, p. 366.

*B. cardinalis* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 219.

*B. frigida* BANKS, Insects, etc., Commander Isl., 1899, p. 348.

*B. marina* PACKARD, First Rept. U. S. Fish Com., 1874, p. 544.—BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 220.

*B. oblonga* SAY, Journ. Phil. Acad., II, 1821, p. 74.—LE CONTE Edit., II, 1859, p. 19.

*B. peregrina* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 219.

*B. robusta* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 220.

*B. tenella* BANKS, Trans. Amer. Ent. Soc., XXIII, 1896, p. 75.

*B. villosa* KRAMER and NEUMAN, Acariden während Vega Exped., 1883, p. 525.

## CYTA.

*Cyta* HEYDEN, Isis, 1826, p. 612.

*C. americana* BANKS, Canad. Entom., 1902, p. 171 (*Ammonia*).

## SCIRUS.

*Scirus* HERMANN, Mém. Aptérol., 1804, p. 62.

**S. quadripilis** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 220.

## EUPALUS.

*Eupalus* KOCH, Crust. Myr. Arachn. Deutsch., fasc. 4, 1836.

**E. echinatus** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 221.

## Family CHEYLETIDÆ.

## CHEYLETUS.

*Cheyletus* LATREILLE, Précis Caract. Ins., 1796, p. 179.

**C. clavispinus** BANKS, Canad. Entom., 1902, p. 172.

**C. ferox** BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 134.

**C. pyriformis** BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 135.

**C. seminivorus** PACKARD, Guide Study Insects, 1869, p. 665.

## MYOBIA.

*Myobia* HEYDEN, Isis, 1826, p. 613.

**M. musculi** SCHRANK, Enum. Ins. Austr., 1781, p. 301.—MÉGNIN, Journ. de l'Anat. Phys., XIV, 1878, p. 432.

## HARPIRHYNCHUS.

*Harpirhynchus* MÉGNIN, Journ. de l'Anat. Phys., XIV, 1878, p. 429.

**H. longipilus** BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 135 (*Sarcopterus*).

## PSORERGATES.

*Psorergates* TYRRELL, Proc. Canad. Inst., (3), I, 1883, p. 342.

**P. simplex** TYRRELL, Proc. Canad. Inst., (3), I, 1883, p. 342.—NEUMANN, Revue Vétérinaire, April, 1893.—CANESTRINI, Prospetto, VI, 1894, p. 809.

*musculus* MICHAEL, Journ. Linn. Soc. Zool., XX, 1889, p. 400 (*Gonio-merus*).

## SYRINGOPHILUS.

*Syringophilus* HELLER, Die Schmarotzer \* \* \* den Menschen (Leipzig), 1880, p. 186.

**S. bipectinatus** HELLER, Die Schmarotzer, 1880, p. 186.—BERLESE, Acari Italiani, fasc. XXXVII, No. 9, 1885, p. 10.

*villosa* HANCOCK, Amer. Nat., 1895, p. 382 (*Picobia*).

## Family ERYTHREIDÆ.

## ERYTHRÆUS.

*Erythræus* LATREILLE, Gen. Crust. Ins., I, 1806, p. 146.

- E. mamillatus* SAY, Journ. Phil. Acad., II, 1821, p. 70.—LECONTE, Edit., II, 1859, p. 16.  
*E. spinatus* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 210.

## ANYSTIS.

*Anystis* HEYDEN, Isis, 1826, p. 612.

- A. agilis* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 211 (*Actineda*).

## GEKOBIA.

*Gekobia* MEGNIN, Ann. Soc. Entom. France, 1878, p. 188.

- G. texana* BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 134.

## Family TETRANYCHIDÆ.

## BRYOBIA.

*Bryobia* KOCH, Crust. Myr. Arachn. Deutsch., fasc. 4, 1836.

- B. pratensis* GARMAN, Fourteenth Report State Entom. of Illinois, 1885, p. 73.—MARLATT, Insect Life, III, 1890, p. 45.  
*pallida* GARMAN, Insect Life, III, 1890, p. 74 (Young).  
*B. weyerensis* PACKARD, Cave Memoir, 1887, p. 42.

## TETRANYCHUS.

*Tetranychus* DUFOUR, Ann. Sci. Nat., XXV, 1832, p. 276.

- T. aceris* SUMMER, Trans. Amer. Ent. Soc., II, 1869, p. 320 (*Acarus*).  
*T. bicolor* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 218; Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 72.  
*T. bimaculatus* HARVEY, Ann. Rept. Maine Agric. Exp. Station, for 1892 (1893), p. 133.—BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 73.  
*T. desertorum* BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 76.  
*T. gloveri* BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 76.—MORGAN, Bull. no. 48, Louisiana Agric. Exp. Sta., 1897, pp. 130-135.—TITUS, Cir. no. 65, U. S. Dept. Agric., Bur. Entom., 1905, p. 5.  
*T. gracilipes* BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 72.  
*T. modestus* BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 73.  
*T. mytilaspidis* RILEY, Hubbard, Orange Insects, 1885, p. 216.—BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 71.—WOODWORTH, Bull. no. 145, California Agric. Exp. Sta., 1902, pp. 19, 5 figs.  
*T. sexmaculatus* RILEY, Insect Life, II, 1890, p. 225.—BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 75.  
*T. telarius* LINNÆUS, Fauna Suecia, 1761, p. 481.—BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 75.  
*T. tumidus* BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 73.  
*T. verbesinæ* COCKERELL, Nature, 16 Oct., 1902, p. 608.

**T. viridis** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 218.

**T. vitis** BOISDUVAL, Entom. Horticole, 1867, p. 92.

*telarius* MAYET and VIALA, Ann. de l'Ecole Nationale d'Agric. de Montpellier, 1893, pp. 18, 1 pl. (not of Linnaeus).

### TENUIPALPUS.

*Tenuipalpus* DONNADIEU, Ann. Sci. Linn., Lyon, XXII, 1875, p. 111.

**T. californicus** BANKS, Jour. N. Y. Entom. Soc., 1904, p. 55.

### TETRANYCHOIDES.

*Tetranychoides* BANKS, Jour. N. Y. Entom. Soc., 1904, p. 54.

**T. californica** BANKS, Jour. N. Y. Entom. Soc., 1904, p. 54.

### STIGMÆUS.

*Stigmaeus* KOCH, Crust., Myr. Arachn. Deutsch., fasc. 4, 1836.

**S. floridanus** BANKS, Tech. Bull. no. 8, Div. Ent., U. S. Dept. Agric., 1900, p. 77.

### NEOPHYLLOBIUS.

*Neophyllobius* BERLESE, Acari dann. piante colt., 1886, p. 20.

**N. americanus** BANKS, Proc. Ent. Soc., Wash., VII, 1906, p. 133.

## Family RHYNCHOLOPHIDÆ.

### RHYNCHOLOPHUS.

*Rhyncholophus* DUGÉS, Ann. Sci. Nat., (2), I, 1834, p. 31.

**R. angustipes**, new name.

*gracilipes* BANKS, Proc. Calif. Acad. Sci., (3), III, 1904, p. 305 (not of Kramer, 1897).

**R. cavernarum** PACKARD, Cave Memoir, 1887, p. 42.

**R. cinctipes** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 216.

**R. elongatus** BANKS, Insects, etc., Commander Isl., 1899, p. 348.

**R. floridanus** BANKS, Trans. Amer. Ent. Soc., XXIII, 1896, p. 74.

**R. longipes** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 215.

**R. maculatus** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 216.

**R. montanus** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 216.

**R. parvus** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 216.

**R. pilosus** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 217.

**R. punctatus** BANKS, Proc. Acad. Nat. Sci., Phil., 1904, p. 143.

**R. robustus** BANKS, Ann. New York Acad. Sci., VIII, 1895, p. 432.

**R. roseus** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 215.

**R. simplex** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 215.

**R. texanus** BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 217.

## SMARIS.

*Smaris* LATREILLE, Précis Caract. Ins., 1796, p. 180.

*S. australis* BANKS, Trans. Amer. Ent. Soc., XXIII, 1896, p. 74.

*S. occidentalis* BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 214.

## Family TROMBIDIIDÆ.

## TROMBIDIUM.

*Trombidium* FABRICIUS, Geb. Insect., 1776, p. 151.

*T. armatum* KRAMER, and NEUMAN, Acariden wahrend Vega Exped., 1883, p. 521.

*T. bulbipes* PACKARD, 3rd Mass. Rept., 1873, p. 26.

*T. gemmosum* BANKS, Proc. Acad. Nat. Sci. Phil., 1901, p. 595.

*T. giganteum* RILEY, First Rept. U. S. Ent. Com., 1878, p. 312.—BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 212.

*T. granulatum* BANKS, Canad. Entom., 1902, p. 171.

*T. magnificum* LE CONTE, Proc. Acad. Nat. Sci. Phil., 1852, p. 145.—BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 213.

*T. marinus* BANKS, Trans. Amer. Ent. Soc., XXIII, 1896, p. 73.

*T. scabrum* SAY, Journ. Phil. Acad., II, 1821, p. 69.—LE CONTE, Edit., II, 1859, p. 16.—BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 212.

*T. sericieum* SAY, Jour. Phil. Acad., II, 1821, p. 70.—LE CONTE, Edit., II, 1859, p. 6.—RILEY, 7th Mo. Rept., 1875, p. 175.—BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 212.

## MICROTROMBIDIUM.

*Microtrombidium* HALLER, J. H. Ver. Würtb., XXXVIII, 1882, p. 322.

*M. granulosa* BANKS, Trans. Amer. Ent. Soc., XXIII, 1896, p. 74 (*Ottonia*).

*M. locustarum* WALSH, Pract. Entom., I, 1866, p. 126.—RILEY, Amer. Nat., XII, 1878, p. 139; First Ann. Rept. U. S. Ent. Com., 1878, p. 306.—BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 213.

*M. muscarum* RILEY, First Rept. U. S. Ent. Com., 1878, p. 306.—BANKS, Trans. Amer. Ent. Soc., XXI, 1894, p. 213.

*M. trombidiodes* BANKS, Trans. Amer. Ent. Soc., XXIII, 1896, p. 74 (*Ottonia*).

## Family CÆCULIDÆ.

## CÆCULUS.

*Cæculus* DUFOUR, Ann. Sci. Nat., XXV, 1832, p. 289.

*C. americanus* BANKS, Proc. Ent. Soc. Wash., IV, 1899, p. 221.

*C. clavatus* BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 136.

## Family HYDRACHNIDÆ.

## LIMNOCHARES.

*Limnochares* LATREILLE, Précis, Caract. Ins., 1796, p. 181.

- L. aquaticus** LINNÆUS, Faun. Suec., 1761, p. 482.—PIERSIG, Das Tierreich, Lief. 13, 1901, p. 14.  
**L. extendens** SAY, Jour. Phil. Acad., 11, 1821, p. 80.—LE CONTE, Edit., 11, 1859, p. 22. [Probably not the European species of same name.]

## EYLAIS.

*Eylais* LATREILLE, Précis, Caract. Ins., 1796, p. 182.

- E. desecta** KOENIKE, Abh. naturw. Ver. Bremen, XIV, 1897, p. 288.  
**E. falcata** KOENIKE, Abh. naturw. Ver. Bremen, XIV, 1897, p. 288.  
**E. triangulifera** KOENIKE, Abh. naturw. Ver. Bremen, XIV, 1897, p. 289.

## THYAS.

*Thyas* KOCH, Crust. Myr. Arach. Deutsch., 1835, fasc. 5.

- T. pedunculata** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 192.  
**T. stolli** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 194.

## PANISUS.

*Panisus* KOENIKE, Zool. Anz., XIX, 1896, p. 356.

- P. cataphracta** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 196.

## TANAOGNATHUS.

*Tanognathus* WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1900, p. 193.

- T. spinipes** WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1900, p. 194.

## KRENDOWSKIA.

*Krendowskia* PIERSIG, Zool. Anz., XVIII, 1895, p. 147.

- K. ovata** WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1900, p. 181.

## STEGANASPIS.

*Steganaspis* WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1901, p. 105.

- S. arrenuroides** WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1901, p. 106.

## ARRENURUS.

*Arrenurus* DUGÈS, Ann. Sci. Nat., (2), I, 1834, p. 17.

- A. birgei** MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 158.  
**A. cardiacus** MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 153.  
**A. caudatus** DE GEER, Mém. Hist. Ins., III, 1778, p. 139.—PIERSIG, Das Tierreich, Lief. 13, 1901, p. 87.—MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 2), 1904, p. 521.

- A. conicus* PIERSIG, Zool. Anzeiger, XVI, 1893, p. 311; Das Tierreich, Lief. 13, 1901, p. 86.—MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 158.
- A. corniger* KOENIKE, Zool. Anzeiger, XVII, 1894, p. 276.—PIERSIG, Das Tierreich, Lief. 13, 1901, p. 84.—MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 155.
- A. cylindricus* PIERSIG, Zool. Anzeiger, XIX, 1896, p. 441; Das Tierreich, Lief. 13, 1901, p. 84.—MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 156.
- A. globator* MÜLLER, Zool. Dan. Prodr., 1776, p. 188.—PIERSIG, Das Tierreich, Lief. 13, 1901, p. 82.—MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 148.
- A. globator* var. *megalurus* MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 150.
- A. interpositus* KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 176.
- A. krameri* KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 182.
- A. lautus* KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 172.
- A. manubriator* MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 151.
- A. morrisoni* MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 2), 1904, p. 523.
- A. parallellatus* MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 154.
- A. securiformis* PIERSIG, Zool. Anzeiger, XVII, 1894, p. 377; Das Tierreich, Lief. 13, 1901, p. 83.—MARSHALL, Trans. Wisc. Acad. Sci., Arts, Lett., XIV (Pt. 1), 1903, p. 152.
- A. setiger* KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 178.

#### ATURUS.

*Aturus* KRAMER, Arch. f. Naturgesch., XLI, 1875, p. 309.

- A. mirabilis* PIERSIG, Sitzungsber. Ges. Leipzig, XXII–XXIII, 1897, p. 157.  
*scaber* KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 186 (not Kramer).

#### XYSTONOTUS.

*Xystonotus* WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1900, p. 185.

- X. asper* WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1900, p. 186.

#### MIDEOPSIS.

*Mideopsis* NEUMAN, Svenska Akad. Handl., XVII, 1880, p. 67.

- M. orbicularis* MÜLLER, Zool. Dan. Prodr., 1776, p. 190.—KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 191.

#### LEBERTIA.

*Lebertia* NEUMAN, Svenska Akd. Handl., XVII, 1880, p. 68.

- L. tau-insignita* LEBERT, Bull. Soc. Vaudoise (2), XVI, 1879, p. 371.—KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 201.

## SPERCHON.

*Sperchon* KRAMER, Arch. f. Naturgesch., 1877, p. 240.

**S. glandulosus**, KOENIKE, Zeitschr. wiss. Zool., XLIII, 1885, p. 270; Abh. naturw. Ver. Bremen, XIII, 1895, p. 202.

**S. parvatus** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 202.

**S. tenuipalpis** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 204.

## LIMNESIA.

*Limnesia* KOCH, Crust. Myr. Arach. Deutsch., fasc. 2, 1835.

**L. cornuta** WOLCOTT, Trans. Amer. Micr. Soc., XXIV., 1903, p. 143.

**L. histrionica** HERMANN, Mém. Aptérol., 1804, p. 55.—WOLCOTT, Trans. Amer. Micr. Soc., XXIV, 1903, p. 146.

**L. koenikei** PIERSIG, Zool. Anz., 1894, p. 115; Das Tierreich, XIII, 1901, p. 177.

**L. maculata** MÜLLER, Zool. Danica prod., 1776, p. 191.—WOLCOTT, Trans. Amer. Micr. Soc., XXIV, 1903, p. 156.

**L. paucispina** WOLCOTT, Trans. Amer. Micr. Soc., XXIV, 1903, p. 152.

**L. undulata** MÜLLER, Hydrachne Danie, 1781, p. 80.—KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 206.—WOLCOTT, Trans. Amer. Micr. Soc., XXIV, 1903, p. 149.

## LIMNESIOPSIS.

*Limnesiopsis* PIERSIG, Zoologica, XXII, 1897, p. 204.

**L. anomala** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 207.

## KOENIKEA.

*Koenikea* WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1900, p. 189.

**K. concava** WOLCOTT, Trans. Amer. Micr. Soc., XXI, 1900, p. 190.

## ATRACTIDES.

*Atractides* KOCH, Crust. Myr. Arach. Deutsch., fasc. 11, 1837.

**A. spinipes** KOCH, Crust. Myr. Arach. Deutsch., fasc. 11, 1837, fig. 16.

*oralis* KOENIKE, Abh. naturw. Ver. Bremen, VIII, 1883, p. 32; XIII, 1895, p. 211.

## HYGROBATES.

*Hygrobates* KOCH, Crust. Myr. Arach. Deutsch., fasc. 10, 1837.

**H. decaporus** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 215.

**H. exilis** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 213.

**H. longipalpis** HERMANN, Mém. Aptérol., 1804, p. 55.—KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 212.

**H. multiporus** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 216.

## TYRRELLIA.

*Tyrrellia* KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 198.

**T. circularis** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 199.

## ATAX.

*Atax* FABRICIUS, Syst. Antliatorum, 1805, p. 336.

- A. *abnormipes* WOLCOTT, Zool. Bull., I, 1898, p. 280; Trans. Amer. Micr. Soc., XX, 1899, p. 218.  
 A. *aculeatus* KOENIKE, Zool. Anz., XIII, 1890, p. 140.  
 A. *aculeatus* var. *sayi* PIERSIG, Das Tierreich, XIII, 1901, p. 213.—WOLCOTT, Trans. Amer. Micr. Soc., XX, 1899, p. 210.  
 A. *adensameri* THON, Ann. Hofmus. Wien, XVI, 1902, p. 31.  
 A. *arcuata* WOLCOTT, Zool. Bull., I, 1898, p. 284; Trans. Amer. Micr. Soc., XX, 1899, p. 231.  
 A. *crassipes* MÜLLER, Zool. Dan. Prodr., 1776, p. 189.—WOLCOTT, Trans. Amer. Micr. Soc., XX, 1899, p. 205.  
 A. *fossulatus* KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 221.—WOLCOTT, Trans. Amer. Micr. Soc., XX, 1899, p. 226.  
 A. *indistinctus* WOLCOTT, Zool. Bull., I, 1898, p. 281; Trans. Amer. Micr. Soc., XX, 1899, p. 221.  
 A. *intermedius* KOENIKE, Abh. naturw. Ver. Bremen, VII, 1882, p. 265.  
 A. *intermedius* var. *Wolcottii* PIERSIG, Zool. Anzeiger, XXIII, 1900, p. 211.—WOLCOTT, Trans. Amer. Micr. Soc., XX, 1899, p. 214.  
 A. *pectinata* WOLCOTT, Zool. Bull., I, 1898, p. 280; Trans. Amer. Micr. Soc., XX, 1899, p. 212.  
 A. *serratus* WOLCOTT, Zool. Bull., I, 1898, p. 282; Trans. Amer. Micr. Soc., XX, 1899, p. 223.  
 A. *stricta* WOLCOTT, Zool. Bull., I, 1898, p. 283; Trans. Amer. Micr. Soc., XX, 1899, p. 229.  
 A. *tumidus* WOLCOTT, Zool. Bull., I, 1898, p. 285; Trans. Amer. Micr. Soc., XX, 1899, p. 236.  
 A. *ypsilophorus* BONZ, Nova Acta Acad. Leop., VII, 1783, p. 52.  
 A. *ypsilophorus* var. *haldemani* PIERSIG, Zool. Anz., XXIII (1900), p. 212.—KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 217.—WOLCOTT, Trans. Amer. Micr. Soc., XX, 1899, p. 233.  
     *formosa* DANA and WHELPLEY, Amer. Jour. Sci., XXX, 1836, p. 357.  
     *oriformis* HALDEMAN, Zool. Contrib., 1842, p. 1.  
     *lactea* HALDEMAN, Zool. Contrib., 1842, p. 1.

## UNIONICOLA.

*Unionicola* HALDEMAN, Zool. Contrib., 1842, p. 1. [Most, if not all, the species are probably synonyms of *Atax ypsilophorus*.]

- U. *humerosa* HALDEMAN, Zool. Contrib., 1842, p. 2.  
 U. *lugubris* HALDEMAN, Zool. Contrib., 1842, p. 2.  
 U. *personata* HALDEMAN, Zool. Contrib., 1842, p. 2.  
 U. *proxima* HALDEMAN, Zool. Contrib., 1842, p. 2.  
 U. *reticulata* HALDEMAN, Zool. Contrib., 1842, p. 3.  
 U. *symmetrica* HALDEMAN, Zool. Contrib., 1842, p. 2.  
 U. *unicolor* HALDEMAN, Zool. Contrib., 1842, p. 3.

## NEUMANIA.

*Neumania* LEBERT, Bull. Soc. Vandoise (2), XVI, 1879, p. 340.

- N. *vernalis* MÜLLER, Zool. Dan. Prodr., 1776, p. 189.—KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 218.—PIERSIG, Das Tierreich, XIII, 1901, p. 227.

## NAJADICOLA.

*Najadicola* PIERSIG, Zool. Anz., XX, 1897, p. 60.

**N. ingens** KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 219.—WOLCOTT, Trans. Amer. Micr. Soc., XX, 1899, p. 238.

## FELTRIA.

*Feltria* KOENIKE, Zool. Anz., XV, 1892, p. 323.

**F. minuta** KOENIKE, Zool. Anz., p. 323, 1892.—PIERSIG, Das Tierreich, XIII, 1901, p. 231.

## PIONA.

*Piona* KOCH, Übers. Arachn. Syst., III, 1842, p. 13.

**P. constrictus** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 222.

**P. coronis** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 208.

**P. crassus** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 246.

**P. debilis** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 234.

**P. exilis** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 210.

**P. fuscatus** HERMANN, Mem. apterol., 1804, p. 58.—PIERSIG, Das Tierreich, XIII, 1901, p. 256.

**P. guatemalensis** STOLL, Biol. Cent.-Amer. Arach.-Acari., 1887, p. 11.—KOENIKE, Abh. naturw. Ver. Bremen, XIII, 1895, p. 209.

**P. inconstans** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 241.

**P. medius** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 229.

**P. obturbans** PIERSIG, Zool. Anz., XIX, 1896, p. 439.—WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 240.

**P. pugilis** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 213.

**P. reighardi** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 235.

**P. rotundus** KRAMER, Arch. f. Naturgesch., 1879, p. 12.—WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 231.

**P. setiger** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 243.

**P. spinulosus** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 226.

**P. triangularis** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 220.

**P. turgidus** WOLCOTT, Trans. Amer. Micr. Soc., XXIII, 1902, p. 216.

## HYDRACHNA.

(Unplaced.)

**H. belostomæ** RILEY, 1st Rept. U. S. Ent. Com., 1878, p. 312.

**H. coccinea** HALDEMAN, Proc. Phil. Acad., I, 1842, p. 196.

**H. nebulosa** HALDEMAN, Proc. Phil. Acad., I, 1842, p. 196.

**H. pyriformis** DANA and WHELPLEY, Amer. Journ. Sci., XXX, 1836, p. 358.

**H. 5-undata** HALDEMAN, Proc. Phil. Acad., I, 1842, p. 184.

**H. scabra** HALDEMAN, Proc. Phil. Acad., I, 1842, p. 184.

**H. triangularis** SAY, Journ. Phil. Acad., II, 1821, p. 79.—LE CONTE, Edit., II, 1859, p. 22. [Probably equal *Har. gysilophorus*.]

**H. tricolor** PACKARD, Amer. Journ. Sci. (3), I, 1871, p. 108.

## Family HALACARIDÆ.

## THALASSARACHNA.

*Thalassarachna* PACKARD, Amer. Journ. Sci. (3), 1, 1871, p. 108.

*T. verrillii* PACKARD, Amer. Journ. Sci. (3), 1, 1871, p. 107.

## Family IXODIDÆ.

## ARGAS.

*Argas* LATREILLE, Précis Caract. Ins., 1796, p. 178.

*A. miniatus* KOCH, Arch. f. Naturg., X, 1844, p. 219.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 402.

*americana* PACKARD, Rept. U. S. Geol. Survey Montana, Idaho, Wyoming, Utah, 1872, p. 740.—NEUMANN, Mém. Soc. Zool. France, 1896, p. 9.

*radiatus* RAILLIET, Traité Zool. Méd., 1893, p. 718.

*persicus* NEUMANN, Arch. Parasit., IX, 1905, p. 240 (not of Fischer).

*A. sanchezi* DUGÈS, La Natureza (2), 1, 1891, p. 20.—NEUMANN, Mém. Soc. Zool. France, 1896, p. 16; 1901, p. 255.

## ORNITHODOROS.

*Ornithodoros* KOCH, Arch. f. Naturg., X, 1844, p. 219.

*O. megnini* DUGÈS, La Natureza Mexicana, VI, 1885, p. 197.—NEUMANN, Mém. Soc. Zool. France, 1896, p. 42.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 408.

*spinosum* MARX, Proc. Ent. Soc. Washington, III, 1895, p. 199 (*Rhy-choprimum*).

*O. turicata* DUGÈS, La Natureza Mexicana, VI, 1885, p. 196.—NEUMANN, Mém. Soc. Zool. France, 1896, p. 31.

*americanus* MARX, Proc. Ent. Soc. Washington, 1895, III, p. 199.

## IXODES.

*Ixodes* LATREILLE, Précis Caract. Ins., 1796, p. 179.

*I. angustus* NEUMANN, Mém. Soc. Zool. France, 1889, p. 136; 1901, p. 284.

*I. arcticus* OSBORN, Fur Seals and Fur Seal Islands of North Pacific Ocean, III, 1899, pp. 553-554.

*I. brunneus* KOCH, Arch. f. Naturg., X, 1844, p. 232; Arachn. Syst., IV, 1847, p. 101; NEUMANN, Arch. Parasit., VIII, 1904, p. 454.

*I. californicus* BANKS, Proc. California Acad. Science (3), III, 1904, p. 369.

*I. cookei* PACKARD, 1st Ann. Rept. Peabody Acad. Science, 1869, p. 67.

*cruciarinus* FITCH, 14th New York Rept., 1871, p. 366.

*hexagonus* var. *longispinosus* NEUMANN, Mém. Soc. Zool. France, 1901, p. 283.

*hexagonus* SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 467 (not of Leach).

*I. dentatus* NEUMANN, Mém. Soc. Zool. France, 1899, p. 119.

*I. diversifossus* NEUMANN, Mém. Soc. Zool. France, 1899, p. 136.

*I. frontalis* PANZER, Fauna Ins. Germ., fasc. 59, fig. 23, 1795.—NEUMANN, Mém. Soc. Zool. France, 1899, p. 133.

- I. fuscus** SAY, Journ. Phil. Acad., 11, 1821, p. 79.—LE CONTE, Edit., 11, 22, 1859.  
[Probably male of *I. scapularis*.]
- I. inchoatus** NEUMANN, Mém. Soc. Zool. France, 1901, p. 283 (as var. of *hectagonus*). [Doubtfully the same as European.]
- I. ricinus** LINNAEUS, Syst. Nat., 1758, p. 615.—NEUMANN, Mém. Soc. Zool. France, 1899, p. 112.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 463.
- I. scapularis** SAY, Journ. Phil. Acad., 11, 1821, p. 78.—LE CONTE, Edit., 11, 1859, p. 21.  
*affinis* NEUMANN, Mém. Soc. Zool. France, 1899, p. 120.
- I. sculptus** NEUMANN, Arch. Parasit., VII, 1904, p. 462.
- I. uriae** WHITE, Sutherland's Journ. Voy. Baffins Bay, II, App., 1852, p. cxx.  
[No description.] [Perhaps *Ceratixodes borealis* Kramer and Neuman.]

## CERATIXODES.

- Ceratixodes* NEUMANN, Arch. Parasit., VI, 1902, p. 115.
- C. borealis** KRAMER and NEUMAN, Acariden während Vega Exped., 1883, p. 526.  
*fimbriatus* KRAMER and NEUMAN, Acariden während Vega Exped., 1883, p. 526, male.  
*hirsutus* BIRULA, Bull. Acad. Imp. St. Petersb., 1895, p. 356.
- C. signatus** BIRULA, Bull. Acad. Imp. St. Petersb., 1895, p. 357.

## HÆMAPHYSALIS.

- Hæmaphysalis* KOCH, Arch. f. Naturg., X, 1844, p. 237.
- H. chordeilis** PACKARD, 1st Ann. Rept. Peabody Acad. Science, 1869, p. 67.
- H. leporis-palustris** PACKARD, 1st Ann. Rept. Peabody Acad. Science, 1869, p. 67.—NEUMANN, Mém. Soc. Zool. France, 1897, p. 343.  
*rostralis* DUGES, Bull. Soc. Zool. France, 1888, p. 129. (*Goni-rodex*.)

## AMBLYOMMA.

- Amblyomma* KOCH, Arch. f. Naturg., X, 1844, p. 223.
- A. americana** LINNAEUS, Syst. Nat., X, 1758, p. 615.—FITCH, 14th N. Y. Rept., 1871, p. 364.—NEUMANN, Mém. Soc. Zool. France, 1899, p. 209.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 475.  
*? orbiculatus* SAY, Journ. Phil. Acad., 11, 1821, p. 76.  
*unipuncta* PACKARD, 1st Ann. Rept. Peabody Acad. Sci., 1869, p. 66.
- A. cajennense** FABRICIUS, Entom. syst., IV, 1794, p. 427.—KOCH, Übersicht Arachn. syst., IV, 1847, p. 73.—NEUMANN, Mém. Soc. Zool. France, 1899, p. 205.  
*crenatum* SAY, Journ. Phil. Acad., 11, 1821, p. 76.—LE CONTE, Edit., 11, 1859, p. 20.  
*mirum* KOCH, Arch. f. Naturg., X, 1844, p. 227.
- A. maculatum** KOCH, Arch. f. Naturg., X, 1844, p. 227.—NEUMANN, Mém. Soc. Zool., France, 1899, p. 249.  
*tigrinum* KOCH, Arch. f. Naturg., X, 1844, p. 227.  
*teuclum* KOCH, Arch. f. Naturg., X, 1844, p. 227.  
*rufripes* KOCH, Arch. f. Naturg., X, 1844, p. 228.  
*oratum* KOCH, Arch. f. Naturg., X, 1844, p. 228.  
*triste* KOCH, Arch. f. Naturg., X, 1844, p. 229.
- A. tuberculatum** MARX, Insect Life, VI, p. 314.—NEUMANN, Mém. Soc. Zool. France, 1899, p. 235.

## DERMACENTOR.

*Dermacentor* KOCH, Arch. f. Naturges., X, 1844, p. 235.

- D. albipictus** PACKARD, Amer. Nat., 11, 1868, p. 559 (no description); Guide Study Ins., 9th part, p. 662, 1869 (Aug.); Amer. Nat., 111, 1869, p. 365-6.  
*variegatus* NEUMANN, Mém. Soc. Zool. France, 1897, p. 367.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 452.  
*reticulatus* SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 448 (not of Fabricius).
- D. bifurcatus** NEUMANN, Mém. Soc. Zool. France, 1899, p. 122; Arch. Parasitol., VIII, 1904, p. 453.
- D. nigrolineatus** PACKARD, 1st Ann. Rept. Peabody Acad. Science, 1869, p. 66.
- D. nitens** NEUMANN, Mém. Soc. Zool. France, 1897, p. 376.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 455.
- D. occidentalis** NEUMANN, Archiv. Parasitol., IX, 1905, p. 235.  
*reticulatus* NEUMANN, Mém. Soc. Zool. France, 1897, p. 360, part.
- D. parumapertus** NEUMANN, Mém. Soc. Zool. France, 1901, p. 267; Archiv. Parasitol., IX, 1905, p. 236.
- D. variabilis** SAY, Journ. Phil. Acad., II, 1821, p. 77.—LE CONTE, Edit., II, 1859, p. 21.  
*americanus* AUTHORS (not Linnaeus).  
*electus* KOCH, Arch. f. Naturges., X, 1844, p. 235.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Ind., 1902, p. 455.  
*albipictus* PACKARD, 1st Rept. Peabody Acad. Sci., 1869, p. 66 (not of Guide and Amer. Nat.).  
*5-striatus* FITCH, 14th New York Rept., 1871, p. 366.  
*robertsoni* FITCH, 14th New York Rept., 1871, p. 366.  
*? punctulatus* SAY, Journ. Phil. Acad., II, 1821, p. 78.—LE CONTE, Edit., p. 21, 1859.

## MARGAROPUS.

*Margaropus* KARSCII, Mitt. Münch. Ent. Ver., 1879, p. 96.

- M. annulatus** SAY, Journ. Phil. Acad., II, 1821, p. 75.—LE CONTE, Edit., II, 1859, p. 19.—NEUMANN, Mém. Soc. Zool. France, 1897, p. 407.—SALMON and STILES, 17th Ann. Rept. Bur. Anim. Industry, 1902, p. 420.  
*boris* PACKARD, 1st Rept. Peabody Acad. Sci., 1869, p. 68.  
*boris* RILEY, Gamgee's Rept. Diseases Cattle, 1869, p. 168.  
*indentatus* GAMGEE, Gamgee's Rept. Diseases Cattle, 1869, p. 121.  
*dugei* MÉGNIN, Les Parasites, 1880, p. 126.

## IXODES.

(Unplaced.)

- I. cinctus** FABRICIUS, Syst. Antliatorum, 1805, p. 356.
- I. erraticus** SAY, Journ. Phil. Acad., 1821, p. 77.—LE CONTE, Edit., II, 1859, p. 20.  
 [Probably a *Dermacentor*.]

## Family GAMASIDÆ.

## HALARACHNÆ.

*Halarachne* ALLMAN, Ann. Mag. Nat. Hist., XX, 1847, p. 47.

**H. americana** BANKS, Proc. Ent. Soc. Wash., IV, 1899, p. 213.

## PTEROPTUS.

*Pteroptus* DUFOUR, Ann. Sci. Nat., XXVI, 1832, p. 98.

**P. americanus** BANKS, Canad. Entom., 1902, p. 173.

## DERMANYSSUS.

*Dermanyssus* DUGES, Ann. Sci. Nat. (Zool.), I, 1834, p. 18.

**D. gallinæ** REDI, Esper. Int. Insetti., 1668, pl. II.—MÉGNIN, Parasit., 1880, p. 115.—OSBORN, Bull. 33 Iowa Agric. Exp. Sta., 1896, p. 595.

## LIPONYSSUS.

*Liponyssus* KOLENATI, Sitzungsber. Kais. Akad. Wissenschft. Wien. Math.-naturw. cl., XXXV, 1859, p. 172.

**L. americanus** BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 136.

## HÆMOGAMASUS.

*Hæmogamasus* BERLESE, Acari Myr. Scorp., fasc. 52, 1889.

**H. americanus** BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 137.

## RAILLIETIA.

*Railletia* TROUESSART, C. R. Soc. Biol., LIV, 1902, p. 1337; Bull. Soc. Zool. France, XXVII, 1902, p. 232.

**R. auris** LEIDY, Proc. Phil. Acad., 1872, p. 138.—TROUESSART, C. R. Soc. Biol., LIV, 1902, p. 1337; Bull. Soc. Zool. France, XXVII, 1902, p. 233.

## CELÆNOPSIS.

*Celænopsis* BERLESE, Acari Myr. Scorp., fasc. 31, 1886.

**C. americanus** BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 137.

## SEIUS.

*Seius* KOCH, Crust. Myr. Arachn. Deutsch., fasc. 4, 1836.

**S. sanborni** PACKARD, Cave Memoir, 1887, p. 42.

**S. quadripilis** BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 138.

## LÆLAPS.

*Laelaps* Koch, Crust. Myr. Arachn. Deutsch., fasc. 4, 1836.

- L. cavernicola* PACKARD, Cave Memoir, 1887, p. 42.
- L. cuneifer* var. *americanus* BERLESE, Redia, I, 1904, p. 418.
- L. macropilis* BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 139.
- L. pilosula* BANKS, Proc. Calif. Acad. Science, (3), III, 1904, p. 368.
- L. placidus* BANKS, Journ. N. Y. Ent. Soc., 1895, p. 128.
- L. similis* MONIEZ, Rev. Biol. Nord France, VI, 1894, p. 20.
- L. wyandottensis* PACKARD, Cave Memoir, 1887, p. 42.

## ECHINOMEGISTUS.

*Echinomegistus* BERLESE, Redia, I, 1904, p. 266.

- E. wheeleri* WASMANN, Zool. Anzeiger, 1902, p. 72 (*Autumnophorus*).—BERLESE, Redia, I, 1904, p. 398.

## GAMASUS.

*Gamasus* LATREILLE, Hist. nat. Crust. Inss., III, 1802, p. 64.

- G. antennæpes* SAY, Journ. Phil. Acad., II, 1821, p. 71.—LE CONTE, Edit., II, 1859, p. 17.
- G. californicus* BANKS, Proc. Calif. Acad. Science (3), III, 1904, p. 368.
- G. juloides* SAY, Journ. Phil. Acad., II, 1821, p. 72.—LE CONTE, Edit., II, 1859, p. 18.
- G. longipalpoides* FELT, 11th Rept. State Entom. N. Y., 1896, p. 259. [Name not to be applied unless mite is new.]
- G. musculus* SAY, Journ. Phil. Acad., II, 1821, p. 72.—LE CONTE, Edit., II, 1859, p. 17.
- G. nidularius* SAY, Journ. Phil. Acad., II, 1821, p. 72.—LE CONTE, Edit., II, 1859, p. 17.
- G. passali* GUÉRIN, Iconog. Règne Anim., IV, Arachn., 1843, p. 15.
- G. spinipes* SAY, Journ. Phil. Acad., II, 1821, p. 71.—LE CONTE, Edit., II, 1859, p. 17.
- G. stygius* PACKARD, Cave Memoir, 1887, p. 42.
- G. troglodytes* PACKARD, Cave Memoir, 1887, p. 42.

## MACROCHELES.

*Macrocheles* LATREILLE, Règne Anim. (nouv. ed. rev. et aug.), IV, 1829, p. 282.

- M. arcticus* KRAMER and NEUMAN, Acariden während Vega Exped., 1883, p. 522.
- M. carolinensis* BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 137.
- M. exilis* BANKS, Proc. Wash. Acad. Sciences, II, 1900, p. 485.
- M. mæstus* BANKS, Canad. Entom., 1898, p. 265.

## MEGISTHANUS.

*Megisthanus* THORELL, Ann. Mus. Genov., XVIII, 1882, p. 41.

- M. floridanus* BANKS, Proc. Acad. Nat. Sci. Phil., 1904, p. 445.

## LIROASPIS.

*Liroaspis* BANKS, Canad. Entom., 1902, p. 174.

*L. americana* BANKS, Canad. Entom., 1902, p. 174.

## UROPODA.

*Uropoda* LATREILLE, Gen. Crist. Ins., I, 1806, p. 157.

*U. americana* RILEY, Proc. Am. Assoc. Adv. Sci., XXV, 1877, p. 273; 9th Mo. Rept., 1877, p. 41.

*U. campomolendina* var. *canadensis* BERLESE, Redia, II, 1905, p. 22.

*U. formica* FITCH, Trans. N. Y. State Agric. Soc. for 1854, p. 857, (1855). 1st Rept., p. 153.

*U. lucifugus* PACKARD, Cave Memoir, 1887, p. 42.

*U. pennsylvanica* BERLESE, Redia, I, 1904, p. 251; p. 347 (*U. roplitella*).

*U. punctulata* BANKS, Canad. Entom., 1898, p. 266.

## TRACHYTES.

*Trachytes* MICHAEL, Trans. Roy. Micr. Soc., 1894, p. 297.

*T. lagenæformis* BERLESE, Redia, II, 1905, p. 21.

## CILLIBA.

*Cilliba* HEYDEN, Isis, 1826, p. 612.

*C. circularis* BANKS, Canad. Entom., 1898, p. 266 (*Discopoma*).

*C. hirsuta* BANKS, Proc. U. S. Nat. Mus., XXV, 1902, p. 221 (*Discopoma*).

*C. hirticoma* BERLESE, Redia, I, 1904, pp. 246, 331.

## DINYCHUS.

*Dinychus* KRAMER, Arch. f. Naturg., LI, 1886, p. 255.

*D. americanus* BANKS, Proc. Ent. Soc. Wash., VII, 1906, p. 139.

## Family ORIBATIDÆ.

## GALUMNA.

*Galumna* HEYDEN, Isis, 1826, p. 612. [*Oribata* of authors, not of Latreille.]

*G. affinis* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 6.

*G. alata* PACKARD, Cave Memoir, 1887, p. 42. [Name preoccupied; but it may be a synonym of some other species.]

*G. arborea* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 7.

*G. armipes* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 492.

*G. depressa* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 6.

*G. emarginata* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 7.

*G. hirsuta* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 7.

*G. imperfecta* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 492.

*G. magna* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 6.

*G. minuscula* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 492.

*G. mœsta* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 6.

- G. nitidula* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 491.  
*G. palustris* BANKS, Journ. N. Y. Ent. Soc., 1895, p. 128.  
*G. persimilis* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 491.  
*G. pratensis* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 6.  
*G. robusta* BANKS, Trans. Amer. Ent. Soc., XXII, 1895, p. 7.  
*G. slossonæ* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 490.  
*G. texana* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 494.  
*G. turgida* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 493.  
*G. unimaculata* BANKS, Proc. Acad. Nat. Sci. Philad., 1906, p. 490.  
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