toe te zenden. Zoo veel mogelijk zullen deze in taal en vorm onveranderd opgenomen worden. De publicatie van dit grootsche werk is verzekerd. Behoef ik het nog warm aan te bevelen?

Arnhem. A. C. OUDEMANS.

Analytical Key for the Classification of Families and Genera of Diacrotricha Oudms. 1906 (Acari.)

Cohors Diacrotricha Oudms. 1906.

A. 1. Skin polished, or dull, or chagrined, or rough, or scaly, only in a few hypopi and nymphae partly finely striated, or wrinkled. Larvae usually with „Bruststiele" or „Urstigmata".

B. 1. Body more or less *Tyroglyphus*-shaped; skin polished, seldom finely granulated; mandibles normal, chelate.

C. 1. Ambulacra with caruncle and movable claw, both sessile. *Tyroglyphidae* DONN. 1868.

C. 2. Ambulacra with claw only.

D. 1. Claw of legs I and II sessile. *Rhizoglyphidae* OUDMS. 1923.

D. 2. Claw of legs I and II on flexible peduncle arising from side of tarsus. *Lentungulidae* BERL. 1897.

C. 3. Ambulacra with small caruncle only. *Nanacaridae* OUDMS. 1923.

C. 4. Ambulacra with caruncle, on the distal half, or on the end of which the claw is attached.

D. 1. With propodosomatic shield; epimera I free; *Mealiidae* OUDMS. 1923.

D. 2. With propodosomatic shield; epimera I joined to sternum. *Winterschmidtiidae* OUDMS. 1923.

D. 3. Without propodosomatic shield; skin moreover weak and polished. *Carpoglyphidae* OUDMS. 1923.

D. 4. Without propodosomatic shield; skin well chitinized; gnathosoma hidden and partly sunk in a hole on ventral side of propodosoma. *Chortoglyphidae* BERL. 1897.

B. 2. Body *Tyroglyphus*-shaped; mandibles stylet-shaped; palps clavate; ambulacra with sessile claw only; legs short. *Nodipalpidae* OUDMS 1923.

B. 3. Body more or less *Tyroglyphus*-shaped; mandibles saw-, or knifelike; ambulacra with sessile claw only; distal joint of palpi with two flagella. *Anoetidae* OUDMS. 1904.

B. 4. Body not *Tyroglyphus*-shaped; skin dull, or rough by numerous fine, or distinct points; gnathosoma distinct; mandibles normal, chelate; tarsi gradually tapering towards their end, with caruncle, on the distal half, or on the end of which the claw is attached; the latter often minute; hairs on dorsum usually hairy, or feathered, or fan-shaped. *Glycyphagidae* BERL. 1887.

B. 5. Body not *Tyroglyphus*-shaped, depressed, round, or oval, or lozenge-shaped, or almost quadrangular; skin leathery, or scaly; mandibles normal chelate; ambulacra with pedunculate caruncle; claw wholly involuted in caruncle, often minute. No club-shaped olfactory hairs on tarsi I and II. *Canestriniidae* BERL. 1884.

A. 2. Soft parts of body finely wrinkled; with propodosomatic shield.

B. 1. Maxillae and legs normal, not difformed to hold a hair.

C. 1. Body flat; legs normal, crawling organs; generally more than one dorsal shield; not burrowing cuniculi.

D. 1. Legs I and II normal, not spinous.

E. 1. Epimera I in both sexes free. *Dermoglyphidae* MÉGN. & TRT. 1883 p. 1319. (*Pterolichidae* 1883 p. 1320.)

E. 2. Epimera I in ♀ free, in ♂ united to sternum. *Falculigeridae* OUDMS. 1908.

E. 3. Epimera I in both sexes united to sternum. *Syringobiidae* BERL. 1907.

D. 2. Legs I and II spinous. *Analgesidae* TRT. & MÉGN. 1883.

C. 2. Body almost globular; gnathosoma and legs very short; fore legs burrowing organs; propodosomatic shield only; burrowing in skin of birds and mammals. *Acaridae* CLAUS 1880.

B. 2. Maxillae, or one or more pairs of legs difformed to hold a hair. *Listrophoridae* HALLER 1880.

Fam. Tyroglyphidae Donn. 1868.

A. 1. With propodosomatic shield; not yet found.

A. 2. Without propodosomatic shield; with line of demarcation between propodo- and hysterosoma.

B. 1. Hind part of propodosoma with transverse row of 4 hairs; ♂ without opisthosomatic shield. *Tyroglyphus* LATR. 1796, type *farinae* L. 1758, vide Arch. Nat. 1913, v. 79, A. 10, p. 51—60. (incl. *Acotyledon* OUDMS. 1902.)

B. 2. Dito, but coxal plates III well defined, and ♀ with littte round postanal shield. *Scatoglyphus* BERL. 1913.

B. 3. Hind part of propodosoma with transverse row of 2 hairs only; ♂ with opisthosomatic shield. *Monieziella* BERL. 1898.

Fam. Rhizoglyphidae Oudms. 1923.

A. 1. With propodo- and hysterosomatic shield; with line of demarcation between propodo- and hysterosoma; hind part of propodosoma with.... ? *Stereoglyphus* BERL. 1923.

A. 2. With propodosomatic shield only; with line of demarcation between propodo- and hysterosoma; hind part of propodosoma with a transverse row of 2 hairs; or of 4 ones, of which the inner pair minute.

B. 1. Skin polished; legs, esp. tarsi with spines; ♀ without copulation tube; ♂ with anal suckers.

C. 1 Hind part of propodosoma with transverse row of 4 hairs, of which the inner pair minute; anterior half of hysterosoma with 4 hairs arranged in a quadrant; tarsi with 2 ventral and distal more or less lanceolate hairs; ♂ with suckers on tarsus IV, but without opisthosomatic shield. *Rhizoglyphus* CLAP. 1869.

C. 2. Hind part of propodosoma with transverse row of 2 hairs only; anterior half of hysterosoma bare; tarsi without lanceolate hairs; ♂ without suckers on tarsus IV, but with opisthosomatic shield. *Schwiebea* OUDMS. 1916. Vide VITZTHUM in Arch. Nat. v. 89. A. 2. p. 151—156.

B. 2. Skin polished; hind part of propodosoma with transverse row of 4 hairs; dorsal hairs short and fine; mandibles robust; palpi 2-jointed; legs without spines, short and thick; ♀ without copulation tube; ♂ with suckers near anus and on tarsus IV. *Petzschia* OUDMS. 1923.

B. 3. Skin chagrined; legs without spines; ♀ with copulation tube; ♂ without suckers near anus, nor on tarsus IV. *Suidasia* OUDMS. 1905.

A. 3. Without propodosomatic shield[1]); with line of demarcation between propodo- and hysterosoma; ♂ without suckers on tarsus IV.

B. 1. ♂ without anal suckers: body posteriorly round; without opisthosomatic shield.

C. 1. Hysterosoma undivided; hairs smooth.

D. 1. Body elongate; legs slender; 3(4?) pairs of hairs on propodosoma[2]). *Saproglyphus* BERL. 1890.

1) Not certain; former authors not always paid attention to it

2) Former writers not always paid attention to nuchal hairs.

D. 2. [1]) Body short; legs short and thick; 6 pairs of hairs on propodosoma. *Valmontia* OUDMS. 1923.

C. 2. [1]) Hysterosoma divided bij a lateral incision behind legs IV; hairs hairy. *Acaridina* VAN BEN. 1870.

B. 2. ♂ with anal suckers.

C. 1. Body slender, posteriorly round; legs and gnathosoma slender; without opisthosomatic shield. *Eberhardia* OUDMS. **nov. gen.** Type *Rhizoglyphus agilis* MICH. 1903.

C. 2. Body slender, ♂ with flabelliform posterior projection; with opisthosomatic shield. *Histiogaster* BERL. 1883.

C. 3. Body robust, posteriorly round; line of demarcation far backward; legs short and thick; mandibles robust; maxillary palpi rodlike, one-jointed. *Ceroglyphus* VITZTHUM 1919.

!! Next to the *Tyrogplyphidae* and *Rhizoglyphidae* are to be placed the genera *Garsaultia* OUDMS. 1916 and *Sancassania* OUDMS. 1916, based on hypopi.

Fam. Lentungulidae Berl. 1897.

A. 1. Without line of demarcation between propodo- and hysterosoma. *Hyadesia* MÉGN. 1889.

A. 2. With line of demarcation. *Lentungula* MICH. 1893.

Fam. Nanacaridae Oudms. 1923.

A. 1. With line of demarcation between propodo- and hysterosoma; legs short and stout; end of tarsus claw-like; caruncle a short blade; genital aperture behind coxae IV; ♂ with anal suckers. *Nanacarus* OUDMS. 1902.

A. 2. Without line of demarcation; legs slender, *Glycyphagus*-like; end of tarsus not claw-like; caruncle bell-shaped; genital aperture?; ♂ with anal suckers. *Giardius* PERRAUD Jan. 1897.

1) Provisorily.

Fam. Mealiidae Oudms. 1923.

One genus only: *Mealia* TRT. 1897.

Fam. Winterschmidtiidae Oudms. 1923.

A. 1. Skin polished; with line of demarcation between propodo- and hysterosoma; hairs on dorsum long; ♀ with dorsal copulation-tube; genital aperture between legs IV. *Winterschmidtia* OUDMS. 1923.

A. 3. Skin finely granulated; with line of demarcation; hairs on dorsum minute; ♀ with dorsal copulation tube; genital aperture long, between coxae III and IV; ♂ with suckers near anus and on tarsus IV. *Aphelenia* OUDMS. 1923.

Fam. Chortoglyphidae Berl. 1897.

A. 1. ♂ genital aperture between epimera III and IV. *Fusacarus* MICH. 1901.

A. 2. ♂ genital aperture in front of epimera I. *Chortoglyphus* Berl. 1884.

Fam. Carpoglyphidae Oudms. 1923.

A. 1. With line of demarcation between propodo- and hysterosoma.

B. 1. Propodosoma with transverse row of 4 hairs; the inner pair short; hairs on dorsum smooth; ♀ genital aperture between coxae IV; ♂ with anal suckers and 2 (or only one?) on tarsus IV. *Calvolia* OUDMS. 1911 (*Pontoppidania* OUDMS. 1923[1]).

B. 2. Propodosoma with transverse row of 4 hairs about equal in length; hairs on dorsum pectinate; ♀ and ♂ moreover as said above. *Forcellinia* **nov. gen.** Type *Tyroglyphus wasmanni* MONIEZ 1892.

B. 3. Propodosoma with transverse row of 2 hairs only; hairs on dorsum smooth; ambalacra with almost obsolete distal claw. *Froweinia* OUDMS. 1923.

1) Also in Rhizoglyphus one of the tarsal suckers is so abnormally placed and so diaphanous, that it is not easily observed.

!! In the neighbourhood of the *Carpoglyphidae*, esp. *Calvolia*, are to be placed *Vidia* OUDMS. 1905, *Tortonia* OUDMS. 1911 and *Horstia* OUDMS. 1905, all bosed on hypopi.

A. 2. Without line of demarcation; hind part of propodosoma with 2 hairs only[1]).

B. 1. Body elongate[1]). *Carpoglyphus* ROBIN 1860.

B. 2. Body round[1]). *Pullea* CAN. 1883[2]).

Fam. Nodipalpidae Oudms. 1923.

One genus only: *Nodipalpus* KARPELLES 1893.

Fam. Anoetidae Oudms. 1904.

One genus only. *Anoetus* DUJ. 1842. — Here also the genera *Lipstorpia* OUDMS. 1911 and *Bonomoia* OUDMS. 1911 based on hypopi.

Family Glycyphagidae Berl. 1897.

A. 1. Ambulacra with strong claws. Hypopi with blunt rounded margins.

B. 1. Several dorsal plates; without line of demarcation between propodo- and hysterosoma. *Hericia* CAN. 1888.

B. 2. Three propodosomatic shields, i.e. the usual one flanked bij marginal shields; without line of demarcation; minute nuchal hairs; without marginal pseudostigmata between legs I and II; dorsal hairs smooth; epimera I free. *Strömia* OUDMS. 1923.

B. 3. One propodosomatic shield; without line of demarcation; without nuchal hairs; marginal pseudostigmata between legs I and II; dorsal hairs rough, or hairy, or feathered, or fan-shaped; epimera I joined to sternum *Sennertia* OUDMS. 1905.

B. 4. Without propodosomatic shields; with line of demarcation between propodo- and hysterosoma; body somewhat rectangular; ♂ without anal suckers; ♀ genital aperture far forward.

1) Former anthors are on this point not always reliable.
2) The transverse line in the drawing of CANESTRINI lies before the transverse row of propodosomatic hairs; therefore it is most probable a fold in the skin, caused by pression of the covering glass.

Chaetodactylus RONDANI 1866 (= *Trichotarsus* CAN. 1888, teste BERLESE in Redia, v. 13, p. 188, 1918).

!! Here the genus *Cerophagus* OUDMS. 1902, based on hypopi.

A. 1. Ambulacra with almost obsolete distal claw; without propodosomatic shield; ♀ with copulation tube and genital suckers. Hypopi with sharp margins.

B. 1. With line of demarcation between propodo and hysterosoma.

C. 1. Line of demarcation on the usual place. *Ctenoglyphus* BERL. 1884.

C. 2. Line of demarcation far forward; propodosoma small. *Labidophorus* KRAMER 1877.

B. 2 Without line of demarcation;

C. 1. Epimera I free; copulation tube inconspicuous, dorsal. *Dermacarus* HALLER 1878.

C. 2 Epimera I joined; copulation tube conspicuous, marginal, *Glycyphagus* HERING 1838.

Fam. Canestriniidae Berl. 1884.

A. 1. With propodosomatic shield; without line of demarcation between propodo- and hysterosoma; gnathosoma plainly visible, almost marginal.

B. 1. Idiosoma almost pentagonal, with parallel sides, posteriorly straight; propodosoma short, with transverse row of 4 hairs, the inner pair short; hysterosoma with 4 transverse rows of 4 hairs each; legs III and IV longer and slenderer than I and II; coxae contiguous; ♀ genital opening far forward; ♂ ditto far backward; no anal suckers. *Rosensteinia* OUDMS. 1923.

B. 2. Idiosoma tapering backwards, posteriorly with long conical process.

C. 1. Propodosoma with transverse row of 4 hairs; hysterosoma with 4 ditto of 4 hairs each; legs long, of about equal strength, legs III and IV as long as idiosoma; epimera I joined to sternum. *Megacanestrinia* TRÄGÅRDH 1906.

C. 2. Propodosoma with transverse row of 2 hairs only (?); hysterosoma with only 4 pairs of hairs; legs of about equal strength; epimera 1 free. *Coleoglyphus* BERL. 1910.

A. 2. Without propodosomatic shield.

B. 1. With line of demarcation between propodo- and hysterosoma.

C. 1. Gnathosoma plainly visible, idiosoma oval-pentagonal.

D. 1. Hind part of propodosoma with transverse row of 4 hairs, inner pair minute and close to the long outer pair; legs of about equal strength; ♂ with anal suckers. *Canestrinia* BERL. 1881.

D. 2. Ditto, but ♂ with legs III and IV thicker than I and II, ending claw like, without ambulacra. *Canestriniella* BERL. 1910.

D. 3. Like D. 1. but ♂ without anal suckers. *Coleopterophagus* BERL. 1882.

D. 4. Hind part of propodosoma with a transverse row of 4 hairs, the inner pair minute, fine, submedian and far forward; legs of about equal strength; ♂ with postanal suckers, and with posterior marginal hairs attached in notches (incisures) *Photia* OUDMS 1904. (*Eucanestrinia* BERL. 1911).

C. 2. Gnathosoma far backward, only tip of it dorsally visible; idiosoma almost pentagonal, posteriorly almost straight; propodosoma with transverse row of 4 long hairs; hysterosoma with long hairs; legs ventral, in ♀ of about equal strength, in ♂ legs III thicker than I and II, legs IV still thicker; ♂ with small suckers to the sides of the anus. *Percanestrinia* Berl. 1911.

B. 2. Without line of demarcation between propodo-and hysterosoma; hind part of propodosoma with a transverse row of 2 hairs only (?)

C. 1. Idiosoma lozenge-shaped or oval; of the gnathosoma only one third is visible from above; legs of about equal strength; legs I and II marginal; ♂ with suckers to the sides of the anus. *Dermaleichus* KOCH 1841.

C. 2. Idiosoma long, oval, top backward; gnathosoma plainly visible, almost marginal; legs marginal, in ♀ of about equal strength, in ♂ legs IV much thicker; ♂ with postanal suckers and posteriorly bifid. *Dicanestrinia* BERL. 1911.

Arnhem. A. C. OUDEMANS.

Larentia variata Schiff. en Larentia obeliscata Hbn.

In het Verslag van de 55ste Wintervergadering der Ned. Ent. Ver. van 19 Feb. 1922 te 's-Gravenhage, maakte ik op blz. XXIV vermelding van de vangst van een ex. van de zeldzaam voorkomende type van *Larentia variata* SCHIFF., welke zeer sterk afwijkt van de algemeene var. *obeliscata* HBN. Toen dit verslag eenige maanden later in drukvorm verscheen, zag ik onderaan blz. XXIV de volgende opmerking staan: »*Cidaria obeliscata* HBN. wordt door PROUT, den bewerker der Geometridae in SEITZ, „Die Gross Schmetterlinge der Erde", voor eene afzonderlijke soort gehouden. J. TH. O."

Deze interessante opmerking noopte mij deze zaak nader te onderzoeken, en wel in Duitschland, waar kweekproeven van bovengenoemde soorten genomen zijn.

Bij mijne persoonlijke bezoeken aan de musea te München en Frankfort a/M., waar ik dit onderwerp nader onderzocht, kreeg ik van de deskundigen aldaar de volledige