

from either the Piratinae or the Revudiinae. Until anecdotal genera are found, the subfamily Vesciinae must maintain its independent status.

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BIBLIOGRAPHICAL NOTICE.

The Observer's Book of British Geology. By I. O. EVANS, F.R.G.S. 3 $\frac{1}{4}$ " x 5 $\frac{1}{4}$ ", boards. Pp. 1-266, 182 illustrations in colour and black and white. London: F. Warne & Co., Ltd. Price 5s. net.

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THE ANNALS AND MAGAZINE OF NATURAL HISTORY

[TWELFTH SERIES.]

No. 28. APRIL 1950.

XXI.—*A List of the Type-hosts of the Mallophaga and the Lice described from them.** By GORDON B. THOMPSON.

[Continued from Ann. & Mag. Nat. Hist. 1948, ser. 12, vol. i. p. 368.]

Order COLUMBIFORMES.

Suborder PTEROCLETES.

Family Pterocletidae.

730. *Syrrhaptēs tibetanus* Gould.
Syrrhaptæcus tibetanus Waterston, 1928. On *Syrrhaptēs tibetanus* from Khambjong, Thibet.
731. *Syrrhaptēs paradoxus* (Pallas).
Syrrhaptæcus bedfordi Waterston, 1928. On *Syrrhaptēs paradoxus* Pall. from Koyssara, Tian Shan, N. Asia.
Syrrhaptæcus paradoxus (Rudow), 1869 (part; see 732). On *Syrrhaptēs paradoxa*.
732. *Pterocles alchata* (Linn.).
Syrrhaptæcus alchatae (Rudow), 1869. On *Pterocles alchatae*.
Syrrhaptæcus paradoxus (Rudow), 1869 (part; see 731). On *Pterocles alchatae*.

* It must be borne in mind when using this list that the type-hosts of the various species of Mallophaga are not fixed but only listed.

733. *Pterocles namaqua namaqua* (Gmelin).
Necmenopon pteroclorus Bedford, 1920. On *Pterocles namaquus* from Transvaal.
Syrhaptæcus digonus Waterston, 1928. On *Pterocles namaquus* from Klipfontein, Little Namaqualand.
734. *Pterocles exustus erlangeri* (Neumann).
Syrhaptæcus emahusaini Ansari, 1947. On Indian Common Sandgrouse, *Pterocles exustus erlangeri* Neum. from Lyallpur, Punjab.
735. *Pterocles exustus* subsp.
Syrhaptæcus falcatus Waterston, 1928. On *Pterocles senegalensis* Licht. var. *orientalis* Hasselq. from Kerreri, Khartoum, Sudan.
736. *Pterocles orientalis* (Linn.).
Syrhaptæcus pallasi Waterston, 1928. On *Eremialector orientalis* Linn. from nr. Fazilka, Punjab.
737. *Pterocles coronatus* Lichtenstein.
Syrhaptæcus brevifrons Waterston, 1928. On *Eremialector coronatus* Licht. from Muscat.
Syrhaptæcus mitratus Waterston, 1928. On *Eremialector coronatus* Licht. from Muscat.
738. *Pterocles gutturalis saturator* Hartert.
Syrhaptæcus uncinus Waterston, 1928. On *Eremialector gutturalis* var. *saturator* Hart., from Simba, Kenya; Lake Zwai, S. Abyssinia.
739. *Pterocles personatus* Gould.
Syrhaptæcus obtusus Waterston, 1928. On *Eremialector personatus* Gould from Madagascar.
740. *Pterocles bicinctus bicinctus* Temminck.
Syrhaptæcus declivis Waterston, 1928. On *Eremialector bicinctus* Temm. from Huxe, Benguela, Angola, S. Africa.
741. *Pterocles indicus* (Gmelin).
Syrhaptæcus angulatus Waterston, 1928. On *Eremialector indicus* Gmel. from Gurgaon Distr. and Gambhur, India.

742. *Pterocles quadricinctus lowei* C. H. B. Grant.
Syrhaptæcus excisus Waterston, 1928. On *Eremialector quadricinctus* Temm. var. *lowei* Grant, from El Obeid, Kordofan, Sudan.
- Suborder COLUMBÆ.
Family Columbidae.
Subfamily TRERONINÆ.
743. *Sphenurus sieboldii sororius* (Swinhoe).
Auricotes kurodai (Uchida), 1917. On *Sphenocercus sororius* from Suisha, Distr. Nanto, Formosa.
744. *Treron vernans* (Linn.).
Coloceras fasciatus (Piaget), 1880. On *Freron* [sic] *vernans*.
745. *Treron waalia* (F. A. A. Meyer).
Coloceras (minor var.) setosus (Piaget), 1880. On *Freron* [sic] *abyssinicum*.
746. *Ptilinopus rivoli* subsp.
Auricotes candidus (Piaget), 1885. On *Ptilopus cinctus-florensis*, Leyden Museum.
747. *Megaloprepia magnifica puella* (Lesson).
Auricotes obscurus Kéler, 1939 (part; see 752). On *Ptilopus puellus*.
748. *Ducula ænea* (Linn.).
Auricotes limbatus Kéler, 1939. On *Carpophaga ænea*.
Columbicola cavifrons (Taschenberg), 1882 (part; see 753). On *Carpophaga ænea*.
749. *Ducula ænea paulina* (Bonaparte).
Oxylipeurus piageti (Taschenberg),* 1882 (*nom. nov.* for *Lipeurus longiceps* Piaget, 1880, *nec* Rudow, 1869) (part; see 750). On *Carpophaga paulina*.
750. *Ducula perspicillata* (Temminck).
Auricotes carpophagæ (Rudow), 1869. On *Carpophaga perspicillata*.
Oxylipeurus piageti (Taschenberg),* 1882 (*nom. nov.* for *Lipeurus longiceps* Piaget, 1880, *nec* Rudow, 1869) (part; see 749). On *Carpophaga perspicillata*.

* Straggler.

751. *Ducula bicolor* (Scopoli).
Auricotes lativenter Kéler, 1939. On *Carpophaga bicolor*.
752. *Ducula luctuosa* (Temminck).
Auricotes obscurus Kéler, 1939 (part; see 747). On *Carpophaga luctuosa*.
753. *Ducula badia* (Raffles).
Columbicola cavifrons (Taschenberg), 1882 (part; see 748). On *Carpophaga badia*.
754. *Ducula badia badia* (Raffles).
Columbicola longiceps sikoræ Eichler, 1942. On *Ducula badia badia* (Raffles), Tinggi Radjah, Sumatra.
755. *Ducula pinon* (Quoy & Gaimard).
Auricotes radiatus Kéler, 1939. On *Carpophaga pinon*.
756. *Ducula rufigaster* (Quoy & Gaimard).
Auricotes affinis (Taschenberg), 1882. On *Carpophaga rufigaster*, Meyer Coll.
757. *Ducula* sp. ?
Columbicola longiceps (Rudow), 1869. On *Carpophaga perspicillata* * from Java.
758. *Lopholaimus antarecticus* (Shaw).
Ancistrodes furcatus Kéler, 1939. On *Lopholaimus antarcticus* Shaw, Dr. Rey Coll.

Subfamily COLUMBINÆ.

759. *Columba rupestris turkestanica* Buturlin.
Columbicola tschulyschman Eichler, 1942. On *Columba rupestris turkestanica* Buturlin from Tschulyschman Valley, Altai.
760. *Columba livia* Gmelin.
Campanulotes compar (Burmeister), 1838. On *Columba livia*.
Columbicola filiformis (Olfers), 1816. On *Columba livia*.

* May be listed under 750.

761. *Columba livia* "domestica".
Menopon longicephalum Kellogg, 1896. * On domestic pigeon, *Columba livia*, Lawrence, Kansas.
Hohorstiella lata (Piaget), 1880. On "un pigeon domestique".
Colpocephalum turbinatum Denny, 1842. On "Turbet-pigeon" from England.
Coloceras ægypticus (Kellogg & Paine), 1911. On "Blue-pigeon" from Malachal, Egyptian Sudan.
Coloceras piageti (Johnston & Harrison), 1912 (part; see 779, 781) (*nom. nov.* for *minor* Piaget, 1880, p. 256 *nec* p. 248). On "pigeons domestiques", Leyden Museum and Rotterdam Zoo.
Campanulotes (*compar* var.) formosanus (Sugimoto), 1929. On Formosan Domestic Pigeon.
Columbicola baculus (Nitzsch), 1818 (*nom. nov.* for Redi's pl. 3, upper fig. and *Pediculus columbæ* "Panzer"). On *Columba livia domestica*.
Phagopterus columbæ Freire & Duarte (1944). On *Columba livia domestica* from Rio G. do Sul, Brazil.
762. *Columba œnas* Linn.
Hohorstiella gigantea (Denny), 1842. On *Columba œnas* from England.
Columbicola claviformis (Denny), 1842 (part; see 763). On *Columba œnas* from England.
Columbicola columbæ (Linn.), 1758. On *Columba œnas*.
763. *Columba palumbus* Linn.
Coloceras damicornis (Nitzsch), 1866. On *Columba palumbus* from Germany.
Campanulotes bidentatus (Scopoli), 1763. On *Columba palumbus* from Carniola, Yugoslavia.
Columbicola claviformis (Denny), 1842 (part; see 762). On *Columba palumbus* from England.
764. *Columba trocaz bollii* Godman.
Columbicola columbæ stresemanni Eichler, 1942. On *Columba trocaz bollii* Godman.
765. *Columba pulchricollis* Blyth.
Nitzschiella (*lativentris* var.) major (Uchida), 1916 (*nec* Piaget, 1880). On *Columba pulchricollis* from Formosa.

* Straggler from *Gullus domesticus*.

766. *Columba iriditorques* Cassin.
Colpocephalum aculeatum Piaget, 1885. On *Columba iriditorques*, Leyden Museum.
767. *Turaecona manadensis* (Quoy & Gaimard).
Hohorstiella menadensis (Piaget), 1880. On *Macropygia (Columba) menadensis*, Leyden Museum.
Coloceras taschenbergi Kéler, 1939. On *Macropygia menadensis*.
Nitzschiella menadensis (Piaget), 1880. On *Macropygia menadensis*, Leyden Museum.
768. *Reinwardtœna reinwardtsi* (Temminck).
Nitzschiella museihalensis Kéler, 1939. On *Macropygia reinwardti*, Dr. Meyer Coll.
769. *Reinwardtœna reinwardtsi reinwardtsi* (Temminck).
Columbicola taschenbergi Eichler, 1942. On *Reinwardtœna reinwardtsi reinwardtsi* Temminck, Halle Mus.
770. *Ectopistes migratoria* (Linn.).
Columbicola extinctus (Malcolmson), 1937. On *Ectopistes migratorum* Linn. from Urbana, Illinois, U.S.A.
771. *Zenaidura macroura* (Linn.).
Campanulotes zenaiduræ (MacGregor), 1917. On *Zenaidura macroura* from S. Dakota, U.S.A.
Columbicola baculoides (Paine), 1914. On *Zenaidura macroura* from California, U.S.A.
Columbicola texanus (MacGregor), 1917. From "turtle-dove" from Uvalde, Texas, U.S.A.
772. *Zenaidura macroura carolinensis* (Linn.).
Columbicola macrouræ Wilson, 1941. On *Zenaidura macroura carolinensis* (Linn.) from New Orleans, La., U.S.A.
773. *Nesopelia galapagoensis* (Gould).
Physconelloides galapagensis (Kellogg & Kuwana),* 1902. On "*Camarhynchus productus*, *Geospiza fuliginosa* and *Oceanites gracilis*", from Albemarle, Narboro' and Albemarle Is., respectively.

* Listed here under its probable true host.

774. *Streptopelia turtur turtur* (Linn.).
Columbicola baculus (Burmeister), 1838 (*nec* Nitzsch, 1818). On *Columba turtur*.
Columbicola bacillus (Giebel), 1866 (*nom. nov.* for *baculus* Burmeister).
775. *Streptopelia decaocto decaocto* (Frivaldszky).
Turturicola salimalii Clay & Meinertzhagen, 1937. On *Streptopelia d. decaocto* from Rajputana, India.
776. *Streptopelia semitorquata semitorquata* (Rüppell).
Columbicola sudanicus (Mjöberg), 1910. On *Turtur semitorquatus* from Sudan.
Coloceras hilli (Bedford), 1920. On Red-eyed Turtle Dove (*Turtur semitorquatus*) from Pietermaritzburg, Natal.
777. *Streptopelia capicola tropica* (Reichenow).
Soricella streptopelia capicolæ Clay & Meinertzhagen, 1937. On *Streptopelia capicola tropica* from Kenya.
778. *Streptopelia vinacea barbaru* Antinori.
Soricella streptopelia streptopelia Clay & Meinertzhagen, 1937. On *Streptopelia vinacea barbaru* Antin. from Uganda.
779. *Streptopelia bitorquata* (Temminck).
Coloceras piageti (Johnston & Harrison), 1912 (*nom. nov.* for *minor* Piaget, 1880, p. 256 *nec.* p. 248) (part; see 761, 781). On *Columba bitorquata* from Leyden Museum and Rotterdam Zoo.
780. *Streptopelia chinensis chinensis* (Scopoli).
Coloceras chinensis (Kellogg & Chapman), 1902. On *Turtur chinensis* from Hawaii (introduced).
Nitzschiella lativentris Uchida, 1916. On *Turtur chinensis* from Kahului, Maui Island.
Turturicola turturis (Uchida), 1917. On *Turtur chinensis* from Marioka, Prov. Rikychû, Japan.
781. *Streptopelia chinensis tigrina* (Temminck).
Colpocephalum longicaudum Nitzsch in Giebel, 1866. On *Columba tigrina*.
Coloceras piageti (Johnston & Harrison), 1912 (*nom. nov.* for *minor* Piaget, 1880, p. 256 *nec.* p. 248) (part;

- see 761, 779). On *Columba tigrina* from Leyden Museum and Rotterdam Zoo.
- Columbicola baculus fulmeki Eichler, 1942. On *Streptopelia chinensis tigrina* Temm., Fulmek Coll.
782. *Geopelia striata striata* (Linn.).
Columbicola mjobergi Eichler, 1943. On *Geopelia s. striata* from Sumatra.
783. *Columbigallina passerina passerina* (Linn.).
Columbicola passerinae Wilson, 1941. On *Columbigallina passerina passerina* (Linn.) from Auburn, Ala., and Slocumb, Ala., U.S.A.
784. *Columbigallina minuta minuta* (Linn.).
Physconelloides mattogrossensis (Guimarães), 1936. On *Columbigallina minuta minuta* (L.) from Matto Grosso, Brazil.
785. *Cena capensis capensis* (Linn.).
Soricella streptopeliae cenae Hopkins, 1941. On *Cena c. capensis* (Linn.) (Long-tailed Dove) from Bugungu, Bunyoro, Uganda.
786. *Henicophaps albifrons* G. R. Gray.
Coloceras procerus Taschenberg, 1882. On *Henicophaps albifrons*, Meyer Coll.
Auricotes (carpophagæ var.) robustus Taschenberg, 1882. On *Henicophaps albifrons*, Meyer Coll.
787. *Phaps chalcoptera chalcoptera* (Latham).
Columbicola angustus (Rudow), 1869. On *Phaps chalcoptera* from Tasmania.
788. *Phaps chalcoptera* (Latham).
Colpocephalum albidum Giebel, 1874. On *Phaps chalcoptera*.
Campanulotes flavus (Rudow), 1869. On *Phaps chalcoptera*.
789. *Leptotila verreauxi chalauchenia* (Selater & Salvin).
Physconelloides ceratoceps Ewing, 1927. On *Leptotila ochroptera chlorauchenia* (sic) from Argentina.
790. *Oreopeleia linearis* (Prévost).
Campanulotes bisetosus (Piaget), 1880. On *Gastrogon linearis*.

791. "Carpophaga samoensis" = ? *Gallicolumba stairi samoensis* (Finsch).
(?) Hohorstiella quinqueguttata (Rudow), 1869. On *Carpophaga samoensis*.
Colpocephalum unicolor Rudow, 1869. Same data.
792. *Otidiphaps nobilis* Gould.
Columbicola fortis (Taschenberg), 1882. On *Otidiphaps nobilis*, Meyer Coll.
793. **Unplaced hosts.**
Bonomiella insolitunguicolata Conci, 1942. On *Colombo*, Museo di Genova.
Columbicola exilicornis (Piaget), 1880. On *Sterna* sp. from Banka (see 715).
Kodocephalon (latus var.) major (Neumann), 1890. See 804.
Physconelloides recurvatus Eichler, 1949. On "Columbina" from Paraguay.
- Subfamily GOÛRINÆ.
794. *Goûra cristata* (Pallas).
Kodocephalon latum (Piaget), 1880. On *Goura coronata* from Leyden Museum.
795. *Goûra victoria* (Fraser).
Kodocephalon suborbiculatus (Piaget), 1890. On *Goura victoriae*, Trouessart Coll.
- Order PSITTACIFORMES.
- Family Psittacidae.
- Subfamily NESTORINÆ.
796. *Nestor notabilis* Gould.
Psittacomenopon (fulvofasciatum var.) kea (Kellogg), 1907. On *Nestor notabilis* from New Zealand.
Neopsittaconirmus (circumfasciatum var.) kea (Kellogg), 1907. Same data.
- Subfamily LOBINÆ.
797. *Trichoglossus ornatus* (Linn.).
Pseudomenopon parumpilosum (Piaget), * 1880. On *Trichoglossus ornatus*.

* A straggler.

798. *Trichoglossus hæmatod moluccanus* (Gmelin).
Eomenopon denticulatum Harrison, 1915 (part; see 800). On *Trichoglossus novæ-hollandiæ* from Myall River, New South Wales.
- Psittaconirmus launceloti Eichler, 1943 (*nom. nov.* for *P. australis* Harrison, 1915, p. 405, fig. 3, pl. 27, fig. 14 *nec* p. 403). On *Trichoglossus novæ-hollandiæ* from Myall River, New South Wales.
799. *Trichoglossus rubiginosus* (Bonaparte).
Psittaconirmus harrisoni Uchida, 1918. On *Eos rubiginosa* from Ponapé Island.
800. *Psittauteles versicolor* (Lear).
Eomenopon denticulatum Harrison, 1915 (part; see 798). On *Ptilosclera versicolor* from New South Wales.
801. *Pseudeos fuscata* (Blyth).
Eomenopon spinimentum (Neumann), 1891. On *Chalcopsittacus fuscatus* from New Guinea.
802. *Domicella lory cyanauchen* (S. Müller).
Echinophlopterus arcunotatus (Neumann), 1891 (part; see 851). On *Lorius cyanauchen* from New Guinea.
803. *Glossopsitta porphyrocephala* (Dietrichsen).
Psittaconirmus australis Harrison, 1915. On *Glossopsittacus porphyrocephalus* from Bow River, Western Australia.

Subfamily KAKATŒINÆ.

804. *Proboseiger aterrimus alecto* (Temminck).
Menopon commissum Neumann, 1890. On *Microglossum alecto* from New Guinea.
- Kodocephalon (latus var.) major (Neumann), * 1890 (*nec* Piaget, 1880). On *Microglossum alecto*.
805. *Proboseiger aterrimus* (Gmelin).
Psittacomenopon temporale (Piaget), 1888. On *Microglossum aterrimus*.
- Degeeriella paraboliceps (Piaget), † 1880. On *Psittacus aterrimus*, Zoological Gardens, Rotterdam.

* Straggler from pigeon. See 793.

† A straggler.

806. *Calyptorhynchus funereus* (Shaw.)
Neopsittaconirmus borgioli Conci, 1942. On *Calyptorhynchus funereus* Shaw from Australia.
807. *Kakatoe galerita triton* (Temminck).
Psittacomenopon cacatuæ (Conci), 1942. On *Cacatua triton* Temm. from New Guinea.
808. *Kakatoe galerita* (Latham).
Neopsittaconirmus albus (Le Souëf & Bullen), 1903. On *Cacotua galerita*
- Neopsittaconirmus capreolus (Gervais), 1847. On *Psittacus sulphureus* from "Nouvelle Hollande".
- Psittæcus waterstoni (Fresca), 1923. On *Cacatua galerita* from Australia.
809. *Kakatoe moluccensis* (Gmelin).
Psittacomenopon pallidum (Piaget), 1880. On *Pictolophus moluccensis* from Zoological Gardens, Rotterdam.
810. *Kakatoe roseicapilla* (Vieillot).
Phlopterus eos (Rudow), 1869. On *Cacatua eos*.
- Degeeriella eos (Giebel), 1874 (*nom. nov.* for *Nirmus tenuis* Rudow, 1870 *nec* Burmeister, 1838) On *Cacatua eos*.
811. *Kakatoe* sp.
Echinophlopterus assimilis (Piaget), 1880. On *Paradisea viridis* (in cage next to a cockatoo from which specimens were also obtained).
812. *Nymphicus hollandicus* (Kerr).
Paragoniocotes fasciatus (Piaget), 1880. On *Nymphicus novæ-hollandiæ* in Zoological Gardens and skin in Leyden Museum.

Subfamily PSITTACINÆ.

813. *Ara ararauna* (Linn.).
Psittacomenopon acuticeps Piaget, 1880. On *Sittace ararauna*, Zoological Gardens, Rotterdam.
- Paragoniocotes mirabilis (Carriker), 1940. On *Ara ararauna* from Chatarona, Dept. Beni, Bolivia.

814. **Ara macao** (Linn.).
Paragoniocotes nanus Guimarães, 1947. On *Ara macao* (L.) from Jamary, Estado do Amazonas, Brazil.
Neopsittaconirmus trinoton (Piaget), 1890. On *Macrocerus macao*.
Ibidocœus longicypeatus (Piaget), * 1880. On *Sittace macao*, Leyden Museum.
Ibidocœus piageti (Bezzi), * 1890 (*nom. nov.* for *bisignatus* Piaget, 1885, *nec* Nitzsch, 1866). On *Sittace macao*, Leyden Museum.
815. **Ara chloroptera** G. R. Gray.
Psittacomenopon burmeisteri (Kellogg), 1906. On *Ava* [sic] *chloroptera* from Argentine.
Paragoniocotes abnormis (Kellogg), 1906. Same data.
816. **Ara sp.**
Echinophilopterus aracaræ (Coinde), 1859. On "Aracara".
817. **Aratinga acuticaudata hæmorrhous** Spix.
Paragoniocotes anomalus Guimarães, 1947. On *Psittacara acuticaudata hæmorrhous* (Spix) from Est. de Goiaz, Brazil.
818. **Aratinga holochlora brevipes** (Lawrence).
Penenirmus (*californiensis* var.) *quadripustulatus* (Kellogg & Mann), 1912. On *Conurus holochlorus* from Socorro Island (part; see *Fringillidæ*).†
819. **Aratinga pertinax** (Linn.).
Psittacomenopon anduzei (Stafford), 1943. On *Aratinga pertinax* from San Felipe, E. Yaracuy.
Paragoniocotes venezolanus Stafford, 1943.‡ On "*Casicus cela cela*" from San Felipe.
820. **Aratinga aurea aurea** (Gmelin).
Paragoniocotes aratingæ Guimarães, 1947. On *Aratinga aurea aurea* (Gmelin) from Sant'Ana do Parnaíba, Est. de Mato-Grosso, Brazil.

* Stragglers from Ibis (see 204) and Carriker (1947, p. 115).

† *Pipilo carmani* from Socorro Island—probably correct host.

‡ This species is placed here in view of its generic position and the data. The host given is definitely not the true one.

821. **Pyrrhura frontalis chiripepe** (Vieillot).
Paragoniocotes pyrrhuræ Guimarães, 1947. On *Pyrrhura frontalis chiripepe* from Dois Irmãos, Hamburgo Velho, Est do Rio Grande do Sul, Brazil.
822. **Myiopsitta monachus** (Boddaert).
Paragoniocotes fulvofasciatus (Picaglia), 1885. On *Conurus monachus* from Modena, Italy.*
823. **Forpus passerinus vividus** (Ridgway).
Paragoniocotes neivai Guimarães, 1940. On *Forpus passerinus vividus* (Ridgway) from Itatiba, Est. de S. Paulo.
824. **Brotogeris versicolurus chiriri** (Vieillot).
Paragoniocotes nirmoides Guimarães, 1947. On *Tirica chiriri* (Vieillot) from Silvânia, Est. de São Paulo, Brazil.
825. **Pionopsitta pileata** (Scopoli).
Paragoniocotes limai Guimarães, 1947. On *Pionopsitta pileata* (Scopoli) from S. Paulo (Capital), Est. de S. Paulo, Brazil.
826. **Pionopsitta pyrilia** (Bonaparte).
Paragoniocotes scutula Carriker, 1947. On *Pyrilia pyrilia* from Tierra Nueva, Sierra Perijá, Colombia.
827. **Hapalopsittaca melanotis melanotis** (Lafresnaye).
Paragoniocotes acutifrons Carriker, 1947. On *Pionopsitta m. melanotis* from Iucachaca, Cochabamba, Bolivia.
828. **Pionus sordidus** (Linn.).
Paragoniocotes longulufrons † *intermedius* Carriker, 1947. On *Pionus sordidus* from Tierra Nueva, Sierra Perijá, Colombia.
829. **Pionus sordidus corallinus** Bonaparte.
Paragoniocotes longulufrons longulufrons Carriker, 1947. On *Pionus corallinus* from Samaipata, Bolivia.

* Presumably a captive bird.

† *longulus* in original—an obvious mistake for *longulufrons*.

830. *Pionus maximiliani* *siy* Souancé.
Paragoniocotes costalimai Guimarães, 1947. On
Pionus maximiliani siy (Souancé) from Salobra,
Est. de Mato-Grosso, Brazil.
831. *Pionus tumultuosus* (Tschudi).
Paragoniocotes longulufrons subsimilis Carriker, 1947.
On *Pionus tumultuosus* from Choros, Dept. Cochabamba, Bolivia.
832. *Pionus fuscus* (P. L. S. Müller).
Paragoniocotes longulufrons gracilis Carriker, 1947.
On *Pionus fuscus* from Airoca, Sierra Perijá,
Colombia.
833. *Amazona albifrons* (Sparrman).
Paragoniocotes microgaster Carriker, 1947. On
Amazona albifrons from Tres Zapotes, Vera Cruz,
Mexico.
834. *Amazona pretrei tucumana* (Cabanis).
Paragoniocotes tenuigaster Carriker, 1947. On
Amazona tucumana from Padilla, Bolivia.
835. *Amazona autumnalis autumnalis* (Linn.).
Paragoniocotes mexicanus Carriker, 1947. On
Amazona a. autumnalis from Tres Zapotes, Vera
Cruz, Mexico.
836. *Amazona dufresniana rhodocorytha* (Salvadori).
Paragoniocotes grandis Guimarães, 1947. On
Amazona rhodocorytha (Salvadori).
837. *Amazona brasiliensis* (Linn.).
Paragoniocotes ligulatus (Neumann), 1890. On
Chrysotis brasiliensis from Rio Negro.
838. *Amazona xanthops* (Spix).
Paragoniocotes intermedius Guimarães, 1947. On
Amazona xanthops (Spix) from Coxim, Est. de
Mato-Grosso, Brazil.
839. *Amazona aestiva aestiva* (Linn.).
Paragoniocotes cummingsi Guimarães, 1947. On
Amazona aestiva aestiva (L.) from Est. de S. Paulo,
Brazil.

- Paragoniocotes heterogenitalis similis Carriker, 1947.
On *Amazona aestiva aestiva* from Nueva Teutonia,
Brazil (Plaumann Coll.).
840. *Amazona aestiva xanthopteryx* (Berlepsch).
Paragoniocotes heterogenitalis heterogenitalis Carriker,
1947. On *Amazona aestiva xanthopteryx* from
Samaipata, Bolivia.
841. *Amazona mercenaria* (Tschudi).
Paragoniocotes mercenarius Carriker, 1947. On
Amazona mercenaria from Mt. San Lorenzo, Sierra
Nevada de Sta. Marta, Colombia.
842. *Amazona farinosa farinosa* (Boddaert).
Paragoniocotes cornutus Carriker, 1947. On *Amazona*
f. farinosa from Chatarona, Rio Beni, Bolivia.
Paragoniocotes rotundus Guimarães, 1947. On
Amazona farinosa farinosa (Boddaert) from Rio S.
José, Est. do Espírito Santo, Brazil.
843. *Amazona imperialis* Richmond.
Paragoniocotes gripecephalus Cummings, 1916. On
Chrysotis augusta.*
844. *Poicephalus meyeri transvaalensis* Neumann.
Psittacomenopon (impar var.) poicephalum (Bedford),
1920. On *Poicephalus meyeri* from Transvaal.†
845. *Poicephalus rüppellii* (G. R. Gray).
Psittacomenopon waar Eichler, 1947. On *Poicephalus*
rüppellii Gray.
Psittacomenopon africapon Eichler, 1947. Same data.
846. *Psittacus erithacus timneh* Fraser.
Psittacomenopon crassiceps (Piaget), 1885. On
Psittacus timneh in Leyden Museum.
Psittacomenopon impar (Piaget), 1885. Same data.
847. *Psittacus erithacus* Linn.
Psittacomenopon bifurcatum (Piaget), 1880. On
Psittacus erithacus in Leyden Museum.
- * See Hopkins, 1950, no. 75.
† Bedford (1932) gives the host as *Poicephalus meyeri damarensis*
Neumann (Meyer's parrot), Rooikiul, Transvaal. I have placed it under
the present host because Peters (1937) states that this subspecies occurs
in the Transvaal, whereas *damarensis* does not.

- Psittacomenopon heterocephalum* (Giebel), 1874. On *Psittacus erythacus*.
- Psittacomenopon* (impar var.) *scalaris* (Piaget), 1885. On *Psittacus erithacus* in Zoological Gardens, Rotterdam.
- Echinophlopterus gilvus* (Nitzsch), 1866. On *Psittacus erithacus*.
- Neopsittaconirmus strepsiceros* (Nitzsch), 1866. On *Psittacus erythacus*.
848. *Coracopsis vasa* (Shaw).
Neopsittaconirmus albidus (Piaget), 1880. On *Coracopsis vasa* in Leyden Museum.
- Psittacomenopon coracopsis* (Mjöberg), 1910. On *Coracopsis obscura* from Madagascar.
849. *Coracopsis nigra* Linn.
Colpocephalum longipes Piaget, 1880 (part; see 852). On *Coracopsis nigra*.
- Neopsittaconirmus albidus piageti* Eichler, 1943 (nom. nov. for unnamed var. described by Piaget, 1880, p. 301, pl. 24, fig. 5 b). On *Coracopsis nigra* ssp.
850. *Psittrichas fulgidus* (Lesson).
Degeeriella ovalis (Neumann), 1890 (part; see 851). On *Dasyptilus pecqueti*.
- Neopsittaconirmus* (strepsiceros var.) *anodis* (Neumann), 1891. Same data. On *Dasyptilus pecqueti* from New Guinea.
851. *Lorius roratus* (P. L. S. Müller).
Degeeriella ovalis (Neumann), 1890 (part; see 850). On *Electus polychlorys*.
- Echinophlopterus arcunotatus* (Neumann), 1891 (part; see 802). On *Electus polychlorus* from New Guinea.
- Psittæcus labidon* (Neumann), 1891. No data given in original.
852. *Lorius roratus roratus* (P. L. S. Müller).
Colpocephalum longipes Piaget, 1880 (part; see 849). On *Electus puniceus* from Zoological Gardens, Rotterdam.
- Neopsittaconirmus interruptofasciatus* (Piaget), 1880 (part; see 853). On *Electus puniceus* (*cardinalis*) from Zoological Gardens, Rotterdam.

- Echinophlopterus protrusus* (Piaget), 1871 (part; see 853). On *Electus puniceus* in Leyden Museum.
853. *Lorius roratus pectoralis* (P. L. S. Müller).
Neopsittaconirmus interruptofasciatus (Piaget), 1880 (part; see 852). On *Electus sinensis* in Zoological Gardens, Rotterdam.
- Neopsittaconirmus taschenbergi* Eichler, 1943 (nom. nov. for *L. circumfasciatus* Taschenberg, 1882, nec Piaget, 1880). On *Electus Linnei*.
- Echinophlopterus protrusus* (Piaget), 1871 (part; see 852). On *Electus sinensis* in Leyden Museum.
854. *Tanygnathus mulleri burbidgii* Sharpe.
Echinophlopterus tanygnathi Ewing, 1927. On *Tanygnathus burbridgei* from Mt. Bud Dajo, Sulu I., Philippine Is.
855. *Tanygnathus mulleri mulleri* (S. Müller).
Echinophlopterus chapini Ewing, 1927. On *Tanygnathus muelleri* from Celebes.
- Neopsittaconirmus femoratus* (Piaget), 1880. On *Electus* (sp. ?) from Celebes.
856. *Psittacula eupatria nipalensis* (Hodgson).
Psittaconirmus chandabani Ansari, 1947. On Indian Large Paroquet, *Psittacula eupatria nepalensis* Hodg. from Lyallpur, Punjab.
857. *Psittacula krameri manillensis* (Bechstein).
Echinophlopterus tota Ansari, 1947. On Indian Rose-ringed Paroquet, *Psittacula krameri manillensis* Bechst. from Lyallpur, Punjab.
- Psittaconirmus lybartota* Ansari, 1947. Same data.
858. *Psittacula derbyana* (Fraser).
Neopsittaconirmus palæornis (Eichler), 1943. On *Psittacula derbyana* from Shanghai, China.
- Echinophlopterus dorotheæ* Eichler, 1943. From skin of *Urocissa erythrorhyncha* from Shanghai, China, but true host believed to be *Psittacula derbyana*.
859. *Polytelis swainsonii* (Desmarest).
Colpocephalum trimaculatum Piaget, 1880 (part; see 865). On *Platycercus barrabandi* in Zoological Gardens, Rotterdam.

- Echinophlopterus angustoclypeatus (Piaget), 1880.
On *Platycercus barrabandi*.
- Echinophlopterus forficula (Piaget), 1871 (part; see 861, 863, 864, 866). On *Platycercus barrabandi*.
860. **Polytelis anthopeplus** (Lear).
Neopsittaconirmus circumfasciatus (Piaget), 1880.
On *Platycercus melanurus* in Leyden Museum.
861. **Alisterus scapularis** (Lichtenstein).
Echinophlopterus forficula (Piaget), 1871 (part; see 859, 864, 865, 867). On *Platycercus scapulatus*.
862. **Prosopiea tabuensis splendens** (Peale).
Neopsittaconirmus pallipes (Piaget), 1885. On *Platycercus splendens* from Fiji I. in Leyden Museum.
863. **Agapornis roseicollis** (Vieillot).
Psittacomenopon waar (Eichler), 1947. On *Agapornis roseicollis*.
864. **Platycercus elegans** (Gmelin).
Echinophlopterus forficula (Piaget), 1871 (part; see 859, 861, 865, 867). On *Platycercus pennanti*.
865. **Platycercus eximius** (Shaw).
Psittacomenopon psittacus (Le Souëf & Bullen), 1902.
On *Platycercus eximus*.
Psittacomenopon pteropsittacus (Harrison), 1916 (unnecessary *nom. nov.* for *Menopon psittacus* Le Souëf & Bullen). On *Platycercus eximius*.
Echinophlopterus forficula (Piaget), 1871 (part; see 859, 861, 864, 867). On *Platycercus eximius*.
866. **Platycercus adscitus palliceps** Lear.
Colpocephalum trimaculatum Piaget, 1880 (part; see 859). On *Platycercus palliceps* in Zoological Gardens, Rotterdam.
867. **Platycercus zonarius** (Shaw).
Echinophlopterus forficula (Piaget), 1871 (part; see 859, 861, 864, 865). On *Platycercus baueri*.
868. **Psephotus varius** Clark.
(?) Psittaconirmus forficuloides (Neumann), 1890,
On *Platycercus multicolor*,

869. **Described from Stragglers on other hosts.**
Eomenopon semilunare (Piaget), 1880. On *Cuculus orientalis*.
Psittacomenopon appendiculatum (Piaget), 1880. On *Perdix cinerea* (see 466).
Psittacomenopon pachypus (Piaget), 1890. On *Prionites brasiliensis* (see 962).
Paragoniocotes semicingulatus (Piaget), 1890. On *Strepsilas collaris*, Trouessart Coll. (see 638).
Echinophlopterus chelorhynchus (Giebel), 1874. On *Circus æruginosus*.
Echinophlopterus forficuloides (Piaget), 1880. On *Alcedo* sp. from Java, Leyden Museum.
Psittæcus buphthalmus (Piaget), 1885. On *Sterna* sp.

[To be continued.]

XXII.—Haplophragmium slingeri, *sp. n.*, and some new species of *Zeauvigerina Finlay* from S.W. Iran. By A. N. THOMAS, M.Sc., F.R.G.S., F.G.S.

[Plate I.]

I. INTRODUCTION.

The new species of foraminifera described in this note were first found in stratigraphical collections from the foothills of Kuh-i-Khumi near Gach Saran and from Kuh-i-Asmari in Khuzistan, in S.W. Iran. *Haplophragmium slingeri*, *sp. n.* has since been found in strata outcropping in various stratigraphical facies for a distance of more than eight hundred miles in the Zagros range. It therefore has a great value in correlation. The species of *Zeauvigerina*, on the other hand, appear to have a more restricted geographical range, but additional occurrences of the species are constantly being recorded from S.W. Iran by the Anglo-Iranian Oil Company Limited.

The diagnoses and descriptions are based entirely on the examination of specimens in thin section. No isolated specimens have yet been found or extracted; the extremely calcareous nature of even the most marly rocks in this part of the sequence has so far prevented extraction by any of the known methods. The descriptions of these new species, therefore, remain incomplete,