A check list of the helminths of guineafowls (Numididae) and a host list of these parasites

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ABSTRACT
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Published and personal records have been compiled into a reference list of the helminth parasites of guineafowls. Where data on other avian hosts was available these have been included for completeness' sake and to give an indication of host range. The parasite list for the Helmeted guineafowls, Numida meleagris, includes five species of acanthocephalans, all belonging to a single genus, three trematodes belonging to three different genera, 34 cestodes representing 15 genera, and 35 nematodes belonging to 17 genera. The list for the Crested guineafowls, Guttera edouardi, contains a single acanthocephalan together with 10 cestode species belonging to seven genera, and three nematode species belonging to three different genera. Records for two cestode species from genera and two nematode species belonging to a single genus have been found for the guineafowl genus Acryllium. Of the 70 helminths listed for N. meleagris, 29 have been recorded from domestic chickens.

Keywords: Acanthocephalans, cestodes, check list, guineafowls, host list, nematodes, trematodes

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INTRODUCTION
Guineafowls (Numididae) originated on the African continent, and with the exception of an isolated population of Helmeted guineafowls in north-west Morocco, their natural distribution is restricted to sub-Saharan Africa (Del Hoyo, Elliott & Sargatal 1994). In the wake of commercial game bird farming, but also as ornamental birds in aviculture, they have been introduced to many other parts of the world, such as France, Hungary, Italy, Greece, the United Kingdom, the USA, Australia and different regions of the former USSR (Haziev & Khan 1991). According to Belshaw (1985) guineafowls were imported into the southern Mediterranean region several millennia before turkeys and hundreds of years before junglefowls from which today’s domestic chickens were derived. Currently four genera of guineafowls are recognized, namely Acryllium Gray, 1840, Ageastes Bonaparte, 1850, Guttera Wagler, 1832 and Numida Linnaeus, 1766 (Del Hoyo et al. 1994).

Many publications on the helminth fauna of guineafowls originate from northern and western Africa, where, second only to the introduced and native domestic fowls, they are farm-reared as a source of protein. The economic importance of guineafowls and domestic fowls within the poultry industry, as well as the fact that domestic fowls are kept by many private households to augment their income, necessitated a better understanding of factors, such as gastro-intestinal parasites, influencing the success-
ful rearing of these birds. Consequently, studies have been conducted to assess the extent to which guineafowls and domestic fowl can serve as alternative hosts for their respective helminths and possibly be adversely affected by them (Hodasi 1969, 1976; Fabiyi 1972; Fatunmbi & Olufemi 1982; Vercruysse, Harris, Bray, Nagalo, Pangui & Gibson 1985).

In southern Africa Ortlepp (1937, 1938a, b, 1963), Saayman (1966), Crowe (1977) and Verster & Platinska-Kloryga (1987) have published on the helminth fauna of guineafowls. No data on the helminths infecting species of the guineafowl genus *Agelastes* could be found, and we are of the opinion that the comparatively short parasite lists for the genera *Acryllium* and *Guttera* reflect a lack of data rather than an absence of parasites.

The check list herein is intended as a quick reference aid and is split into two sections. The first section contains the parasites listed under their scientific names and authorities. Synonyms are provided either as generic synonyms in the case where whole genera have been synonymized or specific synonyms. The second section lists the hosts and their synonyms alphabetically, together with their respective parasites, also in alphabetical order.

The synonymy of the acanthocephalan genus *Mediorhynchus* Van Cleave 1916 is as given by Van Cleave (1947) and Schmidt & Kuntz (1977) and specific synonymy is according to Yamaguti (1963). For an in-depth review of the involved history of this genus's nomenclature the reader is referred to Van Cleave (1947).

The taxonomy of digenean trematodes follows Yamaguti (1958), but since the application of molecular techniques to this group has recently led to many changes, the reader is encouraged to consult the latest literature.

The classification of cestodes is based on the works of Khalil, Jones & Bray (1994). Information on generic synonyms and type species follows Khalil et al. (1994), while that on other species as well as the hosts and geographic distribution has mainly been derived from Yamaguti (1959), Schmidt (1986) and additional published records.

As regards nematode taxonomy, the authors have followed the CIH Keys to the nematode parasites of vertebrates (Anderson, Chabaud & Willmott, 1974–1983) and, where differences have occurred, have accepted the validity of genera and species as listed by Gibson (2005). With regard to generic synonyms, only synonyms listed in the CIH keys and by Gibson (2005) have been included in the check list. Specific synonyms, Type species and other species, as well as much of the data on hosts and geographic distribution are according to Yamaguti (1961) and Gibson (2005). Host and geographic data have been supplemented by including additional literature references.

The families and subfamilies of cestodes and nematodes are listed according to the system of Khalil et al. (1994) and the CIH Keys, respectively, but genera within these families are presented in alphabetical order. Synonyms have been arranged chronologically. The hosts and geographic localities per author are listed alphabetically. If several authors made reference to the same host, the authors are listed in chronological order.

The nomenclature and taxonomy of the avian hosts mainly follows Peterson (1999) and has been supplemented by Lepage (2007). Avian orders and families, as well as the nomenclature of southern African hosts follow Hockey, Dean & Ryan (2005).

In order to avoid excessive duplication, Helmeted guineafowls are listed below as *N. meleagris* only without regards to the subspecies. A total of nine subspecies of *N. meleagris* are currently recognized (Del Hoyo et al. 1994, Peterson 1999). These are: *N. m. coronatus* Gurney, 1868, *N. m. galeatus* Pallais, 1767, *N. m. marungensis* Schalow, 1884, *N. m. meleagris* (Linnaeus, 1758), *N. m. mitratus* Pallais, 1767, *N. m. papillosus* Reichenow, 1894, *N. m. reichenowi* Ogilvie-Grant, 1894, *N. m. sabyi* Hartert, 1919 and *N. m. somaliensis* Neumann, 1899. Del Hoyo et al. (1994) give a detailed list of the geographic range of the various subspecies of Helmeted guineafowls.

In the case of the Crested guineafowls, *Guttera edouardi* (Hartlaub, 1867) we follow Hockey et al. (2005) and Lepage (2007). Crowe (1978, cited in Hockey et al. 2005) had synonymized *G. edouardi* with *Guttera pucherani* (Hartlaub, 1861), but this decision was reversed and *G. edouardi* reinstated (Little & Crowe 2000, cited in Hockey et al. 2005). Peterson (1999) still lists *G. edouardi* as a subspecies of *G. pucherani*.

Hosts listed in the literature as *Gallus domesticus* or *Gallus gallus domesticus* are referred to below as domestic chicken. Lepage (2007) lists domestic chicken as unconfirmed subspecies, *G. g. domesticus* (no authority given), of the Red Junglefowl, *Gallus gallus* (Linnaeus, 1758). However, this subspecies is not included in the five subspecies listed by Peterson (1999).
PARASITE/HOST CHECK LIST

PHYLUM ACANTHOCEPHALA

Class Archiacanthocephala

Order Gigantorhynchidea

Family GIGANTORHYNCHIDAE Hamann, 1892

GENUS MEDIORHYNCHUS VAN CLEAVE 1916

*Echinorhynchus* Zoega in Müller, 1776, in part; *Gigantorhynchus* Hamann, 1892, in part; *Heteroplus* Kostylev, 1914; *Empodius* Travassos, 1916; *Micracanthorhynchus* Travassos, 1917; *Leiperacanthus* Bhalerao, 1937; *Disteganius* Lehmann, 1953, nomen nudum; *Empodisma* Yamaguti, 1963

Type species: *Mediorhynchus papillosus* Van Cleave, 1918

1. *Mediorhynchus empodius* (Skrjabin, 1913) Meyer, 1933
   - *Ardea, Ardeotis arabs, Numida meleagris*
   - Yamaguti (1963), Belgium, Russia

2. *Mediorhynchus gallinarum* (Bhalerao, 1937) Van Cleave, 1947
   - Domestic chicken
   - Yamaguti (1963), India, Philippines
   - Talbot (1971), Papua and New Guinea
   - Gallinaceous birds
     - Schmidt & Kuntz (1977), (East-) Africa, India, Papua and New Guinea, Philippines
   - *Numida meleagris*
     - Junker & Boomker (2006), South Africa

3. *Mediorhynchus numidae* (Baer, 1925) Meyer, 1933
   - *Numida meleagris*
     - Meyer (1932), Namibia
     - Oosthuizen & Markus (1967), South Africa

4. *Mediorhynchus selengensis* Harris, 1973
   - *Numida meleagris*
     - Vercryusse et al. (1985), Burkina Faso
     - Schmidt & Kuntz (1977) synonymized this species with *M. gallinarum*

5. *Mediorhynchus taeniatus* (Von Linstow, 1901) Dollfus, 1936
   - *Empodius segmentatus* De Marval, 1902
   - *Ardeotis arabs*
     - Dollfus (1951) in Yamaguti (1963), Mauritania
   - *Chlamydotis undulata*
     - Dollfus (1951) in Yamaguti (1963), Morocco
   - *Guttera edouardi*
     - Southwell & Lake (1939), Democratic Republic of the Congo
   - *Numida meleagris*
     - Von Linstow (1901), Kenya
     - Meyer (1932), Africa, Malawi
     - Southwell & Lake (1939), Democratic Republic of the Congo
     - Graber (1959), Chad

PHYLUM PLATHYHELMINTHES

Class Trematoda

Order Digenea

Family BRACHYLAEMIDAE Joyeaux & Foley, 1930

GENUS POSTHARMOSTOMUM WITENBERG, 1923

Type species: *Postharmostomum gallinum* (Witenberg, 1923)

1. *Postharmostomum gallinum* (Witenberg, 1923)
   - Crested guineafowl
     - Khan, Khan & Rayaz (1984), Pakistan
   - Domestic chicken
     - Yamaguti (1958), Hawaii, Japan, Russian Turkestan
     - *Numida meleagris*
     - Yamaguti (1958), North Africa

Family DICROCOELIIDAE Odhner, 1911

GENUS Dicrocoelium Dujardin, 1845

Type species: *Dicrocoelium lanceatum* Stiles & Hassal, 1898

1. *Dicrocoelium macrostomum* Odhner, 1911
   - *Coturnix coturnix*
     - Yamaguti (1958), Russia
   - *Numida meleagris*
     - Lesbouyries (1941), Egypt
     - Junker & Boomker (2007b), South Africa

GENUS LUTZTREMA TRAVASSOS, 1941

Type species: *Lutztrema olliquum* (Travassos, 1917)

   - *Numida meleagris*
     - Hodasi (1976), Ghana

Class Cestoda

Subclass Eucestoda

Order Cyclophyllidea

Family DAVAINIDAE Braun, 1900

Subfamily Davaeinae Braun, 1900

GENUS ABULADZUGNIA SPASSKII, 1973

Type species: *Abuladzugnia gutterae* (Ortlepp, 1963)

1. *Abuladzugnia gutterae* (Ortlepp, 1963)
   - *Cotugnia gutterae* Ortlepp, 1963
   - *Guttera edouardi*
     - Ortlepp (1963), Mozambique
   - *Numida meleagris*
     - Junker & Boomker (2007b), South Africa

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2. Abuladzugnia transvaalensis (Ortlepp, 1963)
   Cotugnia transvaalensis Ortlepp, 1963
   Numida meleagris
   Ortlepp (1963), South Africa

GENUS Cotugnia DiMARE, 1893
Ershovitugnia, Spasskii, 1973; Pavugnia Spasskii, 1984; Rostelugnia Spasskii, 1984
Type species: Cotugnia digonopora (Pasquale, 1890) DiMARE, 1893
1. Cotugnia crassa Fuhrmann, 1909
   Guineafowl
   Hudson (1934), East Africa
   Bwangamoi (1968), Uganda
   Numida meleagris
   Fuhrmann (1909) in Ortlepp (1963), the White Nile
   Baer (1925), Namibia
   Baer (1926), East Africa, West Africa
   Ortlepp (1963), Tanzania
   The White Nile rises from Lake Victoria in Uganda and enters the Sudan where it joins the Blue Nile in Khartoum to form the Nile. White Nile is one of the states of Sudan.

2. Cotugnia digonopora (Pasquale, 1890) DiMARE, 1893
   Taenia digonopora Pasquale, 1890
   Anser, Columba livia, Gallus gallus, Numida meleagris
   Schmidt (1986), Africa, Burma, India, Indonesia, Philippines
   Guineafowl
   Baylis (1934), Uganda

3. Cotugnia meleagridis Joyeux, Baer & Martin, 1936
   Numida meleagris
   Joyeux, Baer & Martin (1936), Northern Somalia
   Graber (1959), Chad
   Fabiyi (1972), Nigeria
   Hodasi (1976), Ghana

4. Cotugnia shoohii Sawada, 1971
   Acryllium vulturinum
   Schmidt (1986), Somalia

5. Cotugnia tuliensis Mettrick, 1963
   Numida meleagris
   Schmidt (1986), Zimbabwe

GENUS Davainea Blanchard, 1891
Type species: Davainea proglottina (Davaine, 1860) Blanchard, 1891
1. Davainea nana Fuhrmann, 1912
   Guttera edouardi
   Ortlepp (1963), Zambia
   Numida meleagris
   Fuhrmann (1912), Northern Africa
   Junker & Boomker (2007b), South Africa
   Vanellus cinereus
   Schmidt (1986), Africa, Japan

2. Davainea paucisegmentata Fuhrmann, 1909
   Numida meleagris
   Baer (1926), Sudan, West Africa
   Schmidt (1986), Africa, Europe

3. Davainea paucisegmentata var. dahomeensis Joyeux & Baer, 1928
   Numida meleagris
   Schmidt (1986), France

4. Davainea proglottina (Davaine, 1860) Blanchard, 1891
   Taenia proglottina Davaine, 1860; Davainea varians Sweet, 1910; Davainea dubius Meggitt, 1916
   Alectoris graeca, Bonasa umbellus, Gallus gallus, Perdix perdix
   Schmidt (1986), Cosmopolitan
   Domestic chicken
   Baer (1926), South Africa
   Magwisha, Kassuku, Kyyngaard & Permin (2002), Tanzania
   Numida meleagris
   Nfor, Ajana, Agbede & Esievo (1999), Nigeria

GENUS Numidella Spasskaya & Spasskii, 1971
Type species: Numidella numida (Fuhrmann, 1912) Spasskaya & Spasskii, 1971
1. Numidella numida (Fuhrmann, 1912) Spasskaya & Spasskii, 1971
   Davainea numida Fuhrmann, 1912; Raillietina (Paroniella) numida (Fuhrmann, 1912) Fuhrmann, 1920; Raillietina (Paroniella) magninumida Jones, 1930
   Guineafowl
   Baylis (1934), Uganda
   Guttera, Numida meleagris
   Schmidt (1986), Africa, Cuba, North America
   Guttera
   Baer (1933), Zimbabwe
   Baer (1933) lists ‘Guttera eduardi Elliot’ as host. None of the subspecies of Guttera eduardi listed in Lepage (2007) has been described by Elliot, but Lepage (2007) lists Guttera pucherani verreauxi (Elliot, 1870).
   Meleagris gallopavo, Numida meleagris
   Jones (1930), North America
   Numida meleagris
   Baer (1925), Namibia
   Ortlepp (1963), South Africa
   Fabiyi (1972), Nigeria

GENUS Porogynia Railliet & Henry, 1909
Polycoelia Fuhrmann, 1907, preoccupied
Type species: Porogynia paronai (Moniez, 1892) Railliet & Henry, 1909
1. Porogynia paronai (Moniez, 1892) Railliet & Henry, 1909
   Taenia paronai Moniez, 1892; Linstowia lata Fuhrmann, 1901; Polycoelia lata (Fuhrmann, 1901) Fuhrmann, 1907; Malika numida Woodland, 1929; Raillietina (Paroniella) woodlandi Baylis, 1934
Guttaica edouardi, Numida meleagris, Pteronistis natalensis
Schmidt (1986), Africa, Europe
Guineafowl
Woodland (1928), Sudan
Baylis (1934), Uganda
Guttaica edouardi
Ortlepp (1963), Zambia
Numida meleagris
Baer (1925), Namibia
Baer (1926), East Africa, West Africa
Woodland (1928), Sudan
Ortlepp (1963), South Africa, Swaziland
Cruz e Silva (1971), Mozambique
Fabiyi (1972), Nigeria

Kotlania López-Neyra, 1929; Nonarmina Movsesyan, 1966; Nonarmina Movsesyan, 1966; Kotanotaurus Spasskii, 1973; Roytman Spasskii, 1973; Skrjabinotaurus Spasskii & Yurpalova, 1973; Oschmarinetta Spasskii, 1984

Type species: Raillietina tetragona (Molin, 1858)

1. Raillietina angusta Ortlepp, 1963
Raillietina (Raillietina) angusta Ortlepp, 1963

Numida meleagris
Ortlepp (1963), South Africa

2. Raillietina cohni (Baczynska, 1914) Fuhrmann, 1924
Davainea cohni Baczynska, 1914; Raillietina (Ransomia) cohni (Baczynska, 1914) Fuhrmann, 1920; Raillietina (Raiillietina) cohni (Baczynska, 1914) Fuhrmann, 1924

Gallus gallus, Numida meleagris, Pterocles exustus, Pterocles orientalis arenarius
Schmidt (1986), Africa, Nepal

Domestic chicken
Baer (1926), East Africa

3. Raillietina echinobothrida (Megin, 1880) Fuhrmann, 1924
Taenia echinobothrida Megin, 1880; Taenia botrioplitis Plana, 1881; Davainea parenchymobothrida Magalhães, 1898; Davainea penetrans Baczynska, 1914; Raillietina (Johnstonia) echinobothrida (Megin, 1880) Fuhrmann, 1920; Raillietina (Raillietina) echinobothrida (Megin, 1880) Fuhrmann, 1924; Raillietina (Fuhrmannetta) echinobothrida (Megin, 1880)

Stiles & Orielman, 1926

Columba livia, Gallus gallus, Gallus gallus bankiva, Meleagris gallopavo, Numida meleagris, Perdix perdix, Phasianus colchicus
Schmidt (1986), Cosmopolitan

Domestic chicken
Baer (1926), West Africa
Le Roux (1926), South Africa
Joyeux et al. (1936), Northern Somalia
Poulsen, Permin, Hindsbo, Yelfari, Nansen & Bloch (2000), Ghana
Magwisha et al. (2002), Tanzania
Permin, Esmann, Hoj, Hove & Mukaratiwa (2002), Zimbabwe

Gallus gallus bankiva
Baer (1933), Zimbabwe
Numida meleagris
Baer (1933), Zimbabwe
Southwell & Lake (1939), Democratic Republic of the Congo
Cruz e Silva (1971), Mozambique
Ayeni, Diopol & Okaeme (1983), Nigeria

4. Raillietina pinteri (Klaptocz, 1906) Fuhrmann, 1924
Davainea pinteri/Klaptocz, 1906; Raillietina (Ransomia) pinteri (Klaptocz, 1906) Fuhrmann, 1920; Raillietina (Raillietina) pinteri (Klaptocz, 1906) Fuhrmann 1924; Kotlania pinteri (Klaptocz, 1906) López-Neyra, 1931

Guttaica Baer (1933), Zimbabwe
Baer (1933) lists ‘Guttera edouardi Elliot’ as host. None of the subspecies of Guttera edouardi listed in Lepage (2007) have been described by Elliot, but Lepage (2007) lists Guttera pucherani verreauxi (Elliot, 1870).

Guttaica edouardi, Numida meleagris
Schmidt (1986), Africa

Guttaica edouardi
Ortlepp (1963), Mozambique, Zambia

Numida meleagris
Baer (1925), Namibia
Baer (1926), Sudan, West Africa
Graber (1959), Chad
Ortlepp (1963) South Africa, Swaziland
Fabiyi (1972), Nigeria

5. Raillietina somalensis Sawada, 1971
Raillietina (Raillietina) somalensis Sawada, 1971

Acryllium vulturinum
Schmidt (1986), Somalia

6. Raillietina steinhardtii Baer, 1925
Raillietina (Ransomia) steinhardtii Baer, 1925

Guttaica edouardi
Ortlepp (1963), Mozambique, Zambia

Numida meleagris
Yamaguti (1959), Africa
Verster & Platsinska-Kloryga (1987), South Africa

7. Raillietina tetragona (Molin, 1858) Fuhrmann, 1924
Taenia tetragona Molin, 1858; Taenia longicollis Molin, 1858; Davainea tetragona (Molin, 1858) Blanchard, 1891; Davainea botrioplitis Filippi, 1892; Raillietina (Ransomia) tetragona (Molin, 1858) Fuhrmann, 1920; Raillietina (Raillietina) tetragona (Molin, 1858) Fuhrmann, 1924; Kotlania tetragona (Molin, 1858) López-Neyra, 1931; Raillietina (Raillietina) galli (Yamaguti, 1935) Sawada, 1955

Gallus gallus, Guttera edouardi, Lagopus lagopus, Lagopus muta, Meleagris gallopavo, Numida meleagris, Pavo cristatus, Pavo muticus
Schmidt (1986), Cosmopolitan

Domestic chicken
Baer (1926), East Africa, West Africa
Le Roux (1926), South Africa
Poulsen et al. (2000), Ghana

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**Family DILEPIDIDAE Railliet & Henry, 1909**

**GENUS CHOANOTAENIA Railliet, 1896**

Type species: *Choanotaenia infundibulum* (Bloch, 1779) Railliet, 1896

1. *Choanotaenia infundibulum* (Bloch, 1779) Railliet, 1896
   - *Taenia infundibulum* Bloch, 1779
   - Domestic chicken
   - Poulisen *et al.* (2000), Ghana
   - Magwisha *et al.* (2002), Tanzania

**Numida meleagris**
- Haziev & Khan (1991), Republic of Bashkortostan
- Nfor *et al.* (1999), Nigeria

**Family PARUTERINIDAE Fuhrmann, 1907**

**GENUS OCTOPETALUM Baylis, 1914**

Type species: *Octopetalum guttareae* Baylis, 1914

1. *Octopetalum guttareae* Baylis, 1914
   - *Ascometra guttareae* (Baylis, 1914) Baer, 1955
   - *Guttera edouardi, Numida meleagris*
     - Baer (1926), East Africa
     - Baer (1955), Democratic Republic of Congo, Malawi, South Africa
     - Schmidt (1986), Africa, France

2. *Octopetalum numida* (Fuhrmann, 1909) Baylis, 1914
   - *Rhabdometra numida* Fuhrmann, 1909; *Octopetalum longicirriforme* Baer, 1925; *Uncinia sudanea* Woodward, 1928; *Ascometra numida* (Fuhrmann, 1909) Baer, 1955
   - Guineafowl
     - Baylis (1934), Uganda
     - *Guttera edouardi*
     - Baer (1955), Sub-Saharan Africa
     - Ortlepp (1963), South Africa, Zambia

**Numida meleagris**
- Baer (1925), Namibia
- Schmidt (1986), Africa

**Hexaparuterina** Palacios & Barroeta, 1967

Type species: *Metroliastrongyloides luteus* Ransom, 1900

1. *Metroliastrongyloides luteus* Ransom, 1900
   - *Alectolaimus eques, Alectolaimus rufa, Coturnix coturnix, Gallus gallus, Gallus gallus bankiva, Guttera edouardi, Meleagris gallopavo, Numida meleagris, Perdix perdix*
   - Schmidt (1986), Africa, Australia, Europe, India, North and South America, Russia

**Numida meleagris**
- Southwell & Lake (1939), Democratic Republic of Congo

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**Magwisha *et al.* (2002), Tanzania**

**Permin *et al.* (2002), Zimbabwe**

**Numida meleagris**

- Baer (1926), East Africa, West Africa
- Ayeni *et al.* (1983), Nigeria
- Haziev & Khan (1991), Republic of Bashkortostan

8. *Raillietina tetragonoides* (Baer, 1925) Fuhrmann, 1932
   - *Raillietina (Ransomia) tetragonoides* Baer, 1925; *Raillietina (Raillietina) tetragonoides* (Baer, 1925) Fuhrmann, 1932; *Raillietina (Raillietina) tetragona var. cohni* (Baczynska, 1914) Lopez-Neyra, 1944
   - *Numida meleagris*
     - Baer (1925), Namibia
     - Schmidt (1986), Africa

9. *Raillietina toyohashiensis* Sawada & Chikada, 1972
   - *Numida meleagris*
     - Schmidt (1986), Japan (zoo)

**GENUS SKRJABINIA Fuhrmann, 1920**

*Raillietina (Skrjabinia) Fuhrmann, 1920; Brumptiellia Lopez-Neyra, 1929; Armacetabulum Moxseyan, 1966; Markewitchella Spasski & Spasskaya, 1972; Davantenia Spasski & Spasskaya, 1976

Type species: *Skrjabinia cesticillus* (Molin, 1858) Fuhrmann, 1920

1. *Skrjabinia cesticillus* (Molin, 1858) Fuhrmann, 1920
   - *Taenia cesticillus* Molin, 1858; *Davainea cesticillus* Blanchard, 1891; *Raillietina (Raillietina) mutabilis* Ruther, 1901; *Raillietina (Skrjabinia) cesticillus* (Molin, 1858) Fuhrmann, 1920
   - *Colinus virginianus, Coturnix coturnix, Gallus gallus, Lagopus lagopus, Lagopus lagopus scoticus, Lyrurus tetrix, Meleagris gallopavo, Numida meleagris, Perdix perdix, Phasianus colchicus, Tetrao urogallus, Tetrao urocygus*
     - Schmidt (1986), Cosmopolitan
   - Domestic chicken
     - Baer (1926), West Africa
     - Le Roux (1926), South Africa
     - Joyeux *et al.* (1936), Northern Somalia
     - Poulisen *et al.* (2000), Ghana
     - Magwisha *et al.* (2002), Tanzania
     - Permin *et al.* (2002), Zimbabwe

2. *Skrjabinia deweti* Ortlepp, 1938
   - *Numida meleagris*
     - Ortlepp (1938a), South Africa

**Subfamily Idiogeninae Fuhrmann, 1907**

**GENUS IDIOGENES Krabe, 1867**

*Erisogenes Spasskaya, 1961; Paradidiogenes Moxseyan, 1971

Type species: *Idiogenes otidis* Krabe, 1867

1. *Idiogenes sp.
   - *Numida meleagris*
     - Hodasi (1976), Ghana
Family HYMENOLEPIDIDAE Ariola, 1899
Subfamily Hymenolepidinae Perrier, 1897

GENUS ECHINOLEPSIS SPASSKI & SPASSKAYA, 1954
Type species: Echinolepis carioca (Maghalaes, 1898) Spasskii & Spasskaya, 1954

1. Echinolepis carioca (Maghalaes, 1898) Spasskii & Spasskaya, 1954
   Davainea carioca Maghalaes, 1898; Taenia conardi Zürn, 1898; Hymenolepis carioca (Maghalaes, 1898) Ransom, 1902; Hymenolepis pullae Cholodkovsky, 1913; Weilandia rustica Meggitt, 1926; Hymenolepis rustica Fuhrmann, 1932; Dicranotaenia carioca (Maghalaes, 1898) Skrjabin & Mathevosssian, 1945; Dicranotaenia rustica (Meggitt, 1926) Skrjabin & Mathevosssian, 1945
   Alectoris graeca, Bonasa umbellus, Colinus virginianus, Coturnix coturnix, Gallus gallus, Meleagris gallopavo
   Schmidt (1986), Cosmopolitan
   Domestic chicken
   Le Roux (1926), South Africa
   Magwisha et al. (2002), Tanzania

Numida meleagris
   Baer (1926), West Africa

GENUS HYMENOLEPSIS WEINLAND, 1858
Triorchis Clerc, 1903 preoccupied; Cloacotaenia Wolffthügel, 1938; Amphipetrovia Spasskii & Spasskaya, 1954; Australolepis Spasskii & Spasskaya, 1954; Orlovilepis Spasskii & Spasskaya, 1954; Staphylepis Spasskii & Oshmarin, 1954; Arhynchotaenia Saakova, 1958 nec Pagenstecher, 1877; Schmelzia Yamaguhi, 1959; Woodlandia Yamaguti, 1959; Arhynchotaeniella Schmidt, 1986; Cloacotaeniella Schmidt, Bauerle & Wertheim, 1988; Amanzilolepis Schmidt & Daily, 1992
Type species: Hymenolepis diminuta (Rudolphi, 1819) Weinland, 1858

1. Hymenolepis cantaniana (Polonio, 1860) Ransom, 1909
   Taenia cantaniana Polonio, 1860; Davainea oligophora Maghalaes, 1898; Davainea cantaniana Railliet & Lucet, 1899; Hymenolepis inermis (Yoshida, 1910) Fuhrmann, 1932
   Colinus virginianus, Coturnix coturnix, Gallus gallus, Meleagris gallopavo, Numida meleagris, Pavo cristatus, Perdix perdix, Phasianus colchicus, Tetrao parvirostris, Tetrastes bonasia, Turnix suscitator
   Schmidt (1986), Cosmopolitan
   Domestic chicken
   Le Roux (1926), South Africa
   Magwisha et al. (2002), Tanzania
   Le Roux (1926) chose to retain the name H. inermis for his unarmed specimens and not to accept the synonymy of H. inermis and H. cantaniana since the latter had been described as having an armed rostelium.

Numida meleagris
   Hodasi (1976), Ghana
   Junker & Boomker (2007b), South Africa

GENUS HISPANOLEPSIS LÓPEZ-NEYRA, 1942
Satyolepis Spasskii, 1965
Type species: Hispionolepis villosa (Bloch, 1782) López-Neyra, 1942

1. Hispionolepis falsata (Meggitt, 1927) López-Neyra, 1942
   Hymenolepis falsata Meggitt, 1927.
   Numida meleagris
   Myers, Wolfgang & Kuntz (1960), Sudan
   Chlamydotis undulata
   Schmidt (1986), Egypt

2. Hispionolepis fedtschenkoi (Solowiow, 1911) López-Neyra, 1942
   Hymenolepis fedtschenkoi/Solowiow, 1911; Hymenolepis gweretica Dinnik, 1938
   Gallus gallus, Lyrurus tetrix, Numida meleagris, Tetraogallus hispinalensis, Tetraogallus caucasicus, Tetrastes bonasia
   Schmidt (1986), Russia, Europe, Asia, Africa

3. Hispionolepis hilmyi (Skrjabin & Mathevosssian, 1942) López-Neyra, 1942
   Hymenolepis tetracis Hilmy, 1936
   Numida meleagris
   Schmidt (1986), Liberia

4. Hispionolepis villosa (Bloch, 1782) López-Neyra, 1942
   Numida meleagris
   Baer (1926), East Africa

GENUS ORTLEPPOLEPSIS SPASSKII, 1965
Type species: Ortleppolepis multiuncinata (Ortlepp, 1963) Spasskii, 1965

1. Ortleppolepis multiuncinata (Ortlepp, 1963) Spasskii, 1965
   Hispanolepis multiuncinata Ortlepp, 1963
   Guttera edouardi
   Ortlepp (1963), Zambia
   Numida meleagris
   Junker & Boomker (2007b), South Africa

PHYLM NEMATHELMINTHES

Class Nematoda
Subclass Adenophorea
Order Enoplida
Superfamily Trichinelloidea Hall, 1916
Family TRICHRIDAE (Ransom, 1911) Railliet, 1915
Subfamily Capillariniae Railliet, 1915
GENUS AONCHOTHECA LÓPEZ-NEYRA, 1947
Avesaonchotheca auct.; Baruscapillaria auct.; Capillaria auct.; Pterothonix auct.; Skrjabinocapillaria Skarbilovich, 1946
1. Aonchotheca caudinflata (Molin, 1858)
Check list of helminths of guineafowls (Numididae) and host list of parasites

**Calodium caudinflata** Molin, 1858; **Capillaria blomei** Travassos, 1915; **Trichosoma longicollis** Rudolphi, 1819

- **Chrysolophus**, **Columba**, **Coturnix**, **Gallus**, **Lagopus**, **Lyrurus**, **Otis**, **Numida meleagris**, **Passer**, **Perdix**, **Phasianus**, **Sturnus**, **Tetrao**, **Turdus**

Yamaguti (1961), Europe, North America

Yamaguti (1961) lists *Aonchotheca caudinflata* from *Otis* without giving the host's species name. It is therefore not clear whether *Otis* refers to the current genus *Otis*, *Ardeo-tis*, *Neotis* or *Chlamydotis*.

**Domestic chicken**
Magwisha *et al.* (2002), Tanzania

**Numida meleagris**
Ayeni *et al.* (1983), Nigeria

**Genus Capillaria** Zeder, 1800

- **Trichosoma** Rudolphi, 1819; **Trichosomum** Creplin, 1829; **Thomix** Dujardin, 1845; **Tridentocapillaria** Barus & Sergeeva, 1990; *Aonchotheca auct.*; *Baruscapillaria auct.*; *Ptherominx auct.*; *Trichocephalus auct.*

**Type species:** *Capillaria anatis* (Schrank, 1790) Travassos, 1915

1. **Capillaria anatis** (Schrank, 1790)

- **Trichocapillulus capillaris** Rudolphi, 1809
- **Anas**, **Anser**, **Clangula**, **Lyrurus**, **Melanitta**, **Merganser**, **Perdix**, **Phasianus**

Yamaguti (1961), Europe, Sakhalin, Siberia

**Domestic chicken**
Magwisha *et al.* (2002), Tanzania

**Numida meleagris**
Nfor *et al.* (1999), Nigeria

**Genus Eucoleus** Dujardin, 1845

- **Capillaria auct.**; **Thomix auct.**; **Trichocapillulus auct.**

1. **Eucoleus annulatus** (Molin, 1858)

- **Trichosoma annulatum** Molin, 1858
- **Bonasa**, **Chrysolophus**, **Colinus**, **Gallus**, **Lyrurus**, **Meleagris**, **Numida meleagris**, **Perdix**, **Phasianus**, **Syrmaticus**, **Tetrao**

Yamaguti (1961), Asia, Europe, North and South America

**Domestic chicken**
Magwisha *et al.* (2002), Tanzania

**Numida meleagris**
Fabiyi (1972), Nigeria

**Hodasi** (1976), Ghana

Vercruyssse *et al.* (1985), Burkina Faso

**Subclass Secernentea**

**Order Rhabditida**

**Superfamily Rhabditioidea**

**Family Strongylidae** Chitwood & McIntosh, 1934

**Genus Strongyloides** Grassi, 1879

1. **Strongyloides avium** Cram, 1929

**Heterakis**

Yamaguti (1961), North America, Puerto Rico

**Numida meleagris**
Fabiyi (1972), Nigeria

**Order Strongyliida**

**Superfamily Strongyoidea**

**Family Syngamidae** Leiper, 1912

**Subfamily Syngaminae** Baylis & Daubney, 1926

**Genus Syngamus** Siebold, 1836

- **Cyathostoma**
- **Heterakis**
- **Syngamus**

**Type species:** *Syngamus trachea* (Montagu, 1811) Siebold, 1836

1. **Syngamus trachea** (Montagu, 1811) Siebold, 1836

- **Fasciola** *trachea* Montagu, 1811; **Syngamus trachealis** Siebold, 1836; **Strongylus trachealis** Nathusius, 1937 in Ortlepp (1923); **Strongylus pictus** Creplin, 1849; **Sclerostomum syngamus** Diesing, 1951 in Ortlepp (1923); **Syngamus furcatus** Theob., 1896; **Syngamus primitivus** Molin, 1861; **Syngamus sclerostomum** Molin, 1861

**Galliformes**, **Passeriformes**; rarely **Anseriformes**, "Ardeiformes", "Pelecaniformes", **Piciformes**, **Otiformes**

**Yamaguti** (1961), Africa, Australia, Europe, India, North and South America

**Domestic chicken**
Magwisha *et al.* (2002), Tanzania

**Numida meleagris**
Hodasi (1976), Ghana

Nfor *et al.* (1999), Nigeria

**Order Ascaridida**

**Superfamily Heterakoidea**

**Family Heterakidae** Raillet & Henry, 1912

**Subfamily Heterakinae** Raillet & Henry, 1912

**Genus Heterakis** Dujardin, 1845

- **Ganguletakis** Lane, 1914; **Raillietakis** Freitas, 1956; **Inglisakis** Freitas, Vicente & Santos, 1969

**Type species:** *Heterakis vesicularis* (Frölich, 1791)

1. **Heterakis vesicularis** (Frölich, 1791)

- **Ascaris vesicularis** Frölich, 1791; **Ascaris papillosa** Bloch, 1782, in part

- **Anas**, **Colinus**, **Coturnix**, **Cygnus**, **Gallus**, **Lagopus**, **Meleagris**, **Numida meleagris**, **Oreortyx pictus**, **Otis**, **Pavo**, **Perdix**, **Phasianus colchicus**, **Polyplectron**, **Tetrao**

Yamaguti (1961), Africa, Europe, North America

**Lophophorus**, **Lophura**

Yamaguti (1961), Nepal

Yamaguti (1961) lists *Heterakis vesicularis* from *Otis* without giving the host’s species name. It is therefore not clear whether *Otis* refers to the current genus *Otis*, *Ardeo-tis*, *Neotis* or *Chlamydotis*.

2. **Heterakis brevispiculum** Genrendre, 1911

**Domestic chicken**, **Numida meleagris**, **Ptemistis bicalcaratus**
3. Heterakis dispar (Schrank, 1790)

*Ascaris dispar* Schrank, 1790

*Alectoris, Anas, Anser, Anser cygnoides, Branta, Bernicia, Cairina, Chlorhaga, Glaucomids, Numida meleagris*, *Strix, Sumia, Tadorna*

Yamaguti (1961), Cosmopolitan

Domestic chicken

Permin, Magwisha, Kassaku, Nansen, Bisgaard, Frandsen & Gibbons (1997), Tanzania

4. Heterakis gallinarum (Schrank, 1788)

*Ascaris gallinarum* Schrank, 1788; *Heterakis gallinae* Gmelin, 1790; *Heterakis longicaudata* Von Linstow, 1879

*Acryllium, Alectoris, Anas, Anser, Bonasa, Cairina, Chrysophalus, Colinus, Cupivudonia, domestic chicken, Francolinus, Houbara, Lagopus, Lophophorus, Lophura, Lyurus, Meleagris*, *Otis, Pavo, Pedioecetes, Perdix, Phasianus, Pterocles, Strix, Symaticus, Tetrao, Tragopan, Tympanuchus*

Yamaguti (1961), Cosmopolitan

Yamaguti (1961) lists *Heterakis gallinarum* from Otis without giving the host’s species name. It is therefore not clear whether Otis refers to the current genus Otis, Ardeotis, Neotis or Chlamydotis.

Domestic chicken

Poulser et al. (2000), Ghana

Magwisha et al. (2002), Tanzania

Permin et al. (2002), Zimbabwe

**Numida meleagris**

Ayeni et al. (1983), Nigeria

Verster & Ptasinska-Kloryga (1987), South Africa Haziev & Khan (1991), Republic of Bashkortostan

Domestic chicken

Le Roux (1926), South Africa

5. Heterakis tenuicauda Von Linstow, 1883

*Alectoris graeca, Alectoris graeca saxatilis*

Yamaguti (1961), Turkestan

*Acryllium vulturinum*

Canavan (1929) in Yamaguti (1961), East Africa

Family ASCARIDIIDAE Travassos, 1919

**GENUS ASCARIDA Dujardin, 1845**

*Cotyloascaris* Sprent, 1971

Type species: *Ascaridia hemaphrodita* (Frölich, 1789) Railliet & Henry, 1914

**1. Ascaridia calcarata** (Gendre, 1909)

*Numida meleagris*

Yamaguti (1961), Africa

Junior synonym of *Ascaridia numidae* (Leiper, 1908) according to Sprehn (1932) in Yamaguti (1961).

**2. Ascaridia compar** (Schrank, 1790) Travassos, 1913

*Ascaris compar* Schrank, 1790

*Alectoris, Coturnix, Gallus, Lyurus, Numida meleagris*, *Oreortyx pictus, Perdix, Tetrao, Tympanuchus*

Yamaguti (1961), America, Europe, India, Philippines

**3. Ascaridia galli** (Schrank, 1788) Freeborn, 1932

*Ascaris galli* Schrank, 1788; *Fusaria inflexa* Zeder, 1800 (Baylis 1932, cited in Yamaguti 1961); *Fusaria reflexa* Zeder, 1800, in part; *Fusaria strumosa* Zeder, 1800, in part (López-Neyra 1946, cited in Yamaguti 1961); *Heterakis brasiliensis* Magalhães, 1892 (Pinto & Lins de Almeida 1935, cited in Yamaguti 1961); *Heterakis granulosa* Von Linstow, 1906 (Baylis 1932, cited in Yamaguti 1961); *Ascaridia hamia* Lane, 1914

Domestic chicken, guineafowl

Yamaguti (1961), Europe, Japan

*Alectoris, Bonasa, Cairina, Colinus, duck, Ithaginis, Lyurus, Meleagris, Numida meleagris, Perdix, Phasianus, Streptopelia, Tetrao, Tympanuchus*

Yamaguti (1961), Cosmopolitan

Domestic chicken

Poulser et al. (2000), Ghana

Magwisha et al. (2002), Tanzania

Permin et al. (2002), Zimbabwe

*Numida meleagris*

Ayeni et al. (1983), Nigeria

Verster & Ptasinska-Kloryga (1987), South Africa Haziev & Khan (1991), Republic of Bashkortostan

Domestic chicken

Le Roux (1926), South Africa

**4. Ascaridia lineata** (Schrank, 1866)

*Ascaris lineata* Schrank, 1866

*Alectoris, Anas, Anser, Bonasa, duck, Francolinus, Gallus, goose, Meleagris, Meleagris ocellata, Numida, partridge, Phasianus, pigeon, Tympanuchus*

Yamaguti (1961), Africa, Brazil, China, Cuba, Europe, Formosa, India, Malaya, North America, Philippines, Puerto Rico, Turkestan

Domestic chicken

Le Roux (1926), South Africa

**5. Ascaridia numidae** (Leiper, 1908) Travassos, 1913

*Heterakis numidae* Leiper, 1908

*Alectoris, Guttera*

Yamaguti (1961), Africa

Guineafowl

Yamaguti (1961), Puerto Rico

Bwngambo (1968), Uganda

*Numida meleagris*

Gaber (1958), Chad

Yamaguti (1961), Africa, the White Nile

Myers et al. (1960), Sudan

Fabiyi (1972), Nigeria

Hodasi (1976), Ghana

Vercruysse et al. (1985), Burkina Faso

Verster & Ptasinska-Kloryga (1987), South Africa

The White Nile rises from Lake Victoria in Uganda and enters the Sudan where it joins the Blue Nile in Karthoum to form the Nile. White Nile is one of the states of Sudan.
Check list of helminths of guineafowls (Numididae) and host list of parasites

6. *Ascaridia perspicillum* (Rudolphi, 1803)
   *Ascaris perspicillum* Rudolphi, 1803
   
   Anas acuta, domestic chicken, Meleagris gallopavo, Numida meleagris, Pavo cristatus, Tetrao urogallus, Tetrastes bonasia rupestris, Turdus viscivorus
   
   Yamaguti (1961), Europe, Hawaii, India, Indonesia, Japan, Malaya

Superfamily Subuluroidea

Family SUBULURIDAE (Travassos, 1914) Yorke & Maplestone, 1926

Subfamily Subulurinae Travassos, 1914

**GENUS SUBULURA** **Molin, 1860**

*Allodapa auct.*

Type species: *Subulura acutissima* Molin, 1860

1. *Subulura acuticauda* (Von Linstow, 1901) Railliet & Henry, 1914

   Oxysoma acuticauda Von Linstow, 1901; Heterakis acuticauda (Von Linstow, 1901) Von Linstow, 1909

   *Numida meleagris*

   Von Linstow (1901), Kenya
   
   Yamaguti (1961), Africa

2. *Subulura brumpti* (Lopez-Neyra, 1922)

   *Allodapa brumpti* Lopez-Neyra, 1922

   Alectoris graeca, Anas, Colinus virginianus texanus, domestic chicken, Meleagris gallopavo, Numida, Perdix perdix perdix, Streptopelia cygnula

   Yamaguti (1961), Europe, Palestine, Cyprus, Cuba, Puerto Rico, Panama, North America, Africa, China

   Domestic chicken

   Hodasi (1969), Ghana
   
   Mukaratirwa, Hove, Esmann, Hoj, Permin & Nansen (2001), Zimbabwe

   *Numida meleagris*

   Graber (1959), Chad
   
   Hodasi (1976), Ghana
   
   Nfor et al. (1999), Nigeria

3. *Subulura dentigera* Ortlepp, 1937

   *Numida meleagris*

   Ortlepp (1937), South Africa

4. *Subulura differens* (Sonsino, 1890)

   *Heterakis differens* Sonsino, 1890

   Alectoris graeca, Centropus phasianus, domestic chicken, Euplectes orix, Numida meleagris, Perdix perdix canescens, Pternistis bicalcaratus

   Yamaguti (1961), Cosmopolitan

5. *Subulura suctoria* (Molin, 1860)

   *Heterakis suctoria* Molin, 1860; *Ascaris forcipata* Rudolphi, 1819, in part

   Caprimulgus, Podager, Nyctibius

   Yamaguti (1961), Brazil

   Burhinus, Coturnix, Numida, Pternistis

   Yamaguti (1961), South Africa (Transvaal)

   *Coturnix coturnix*, Lagopus lagopus, Phasianus colchicus, Phasianus colchicus mongolicus, Phasianus colchicus principalis

   Yamaguti (1961), Russia, Turkestan

   Domestic chicken

   Permin et al. (1997), Tanzania
   
   Permin et al. (2002), Zimbabwe

   *Guttera edouardi*

   Junker & Boomker (2007b), South Africa

   *Numida meleagris*

   Ortlepp (1937), South Africa
   
   Fabiyi (1972), Nigeria
   
   Verbruyssse et al. (1985), Burkina Faso

Order Spirurida Diesing, 1861

Superfamily Thelazioidae

Family THELAZIIDAE Skrjabin, 1915

**GENUS OXYSPIRURA** **DRAŞCHE IN STOSSICH, 1897**

*Cramispirura* Skrjabin, 1931

Type species: *Oxyspirura cephaloptera* (Molin, 1860)

1. *Oxyspirura mansoni* (Cobbold, 1879)

   *Filaria mansoni* Cobbold, 1879; *Spiroptera emmerezii* Emmez & Mégnin, 1901 (Marotel & Carougeau 1902, cited in Yamaguti 1961)

   Domestic chicken, Gallus gallus, Meleagris gallopavo, Pavo cristatus

   Yamaguti (1961), Atlantic and Pacific islands, Australia, Democratic Republic of Congo, Formosa, India, Japan, North America

   *Numida meleagris*

   Hodasi (1976), Ghana

Superfamily Spiruroidea

Family GONGYLONEMATIDAE (Hall, 1916, subfam.) Sobolev, 1949

**GENUS GONGYLONEMA** **Molin, 1857**

Type species: *Gongylonema muscoli* (Rudolphi, 1819) Neumann, 1894

1. *Gongylonema infulicola* Ransom, 1904

   *Gongylonema sumani* Bahlerao, 1933 (Baylis 1939, cited in Yamaguti 1961)
*Gallus, Meleagris*, pheasants  
Yamaguti (1961), Cosmopolitan  

Domestic chicken  
Poulsen *et al.* (2000), Ghana  
Magwisha *et al.* (2002), Tanzania  
Permin *et al.* (2002), Zimbabwe  

*Numida meleagris*  
Nfr *et al.* (1999), Nigeria  

2. *Gongylonema congolense* Fain, 1955  
*Cairina moschata*  
Fain (1955), Democratic Republic of the Congo  

*Gallus*  
Fain (1955), Burundi, Democratic Republic of the Congo, Rwanda  

*Guttera edouardi*  
Junker & Boomker (2007b), South Africa  

*N. meleagris*  
Fain (1955), Burundi, Democratic Republic of the Congo, Rwanda  

Fabiyi (1972), Nigeria  
Graber (1976), Ethiopia  
Hodasi (1976), Ghana  
Vercruysse *et al.* (1985), Burkina Faso  

*N. meleagris*  
Fain (1955), Burundi, Democratic Republic of the Congo, Rwanda  

Fabiyi (1972), Nigeria  
Vercruysse *et al.* (1985), Burkina Faso  

Junker & Boomker (2007b), South Africa  

*Scleroptila levallantii*  
Fain (1955), Rwanda  

3. *Gongylonema sumani* Bhalerao, 1933  
*Gallus gallus*  
Bhalerao (1933), India  

*N. meleagris*  
Fain & Thienpont (1958), Burundi  

Chabaud (1958) divided the genus *Cyrnea* into the two subgenera *Procyrnea* Chabaud, 1958 and *Cyrnea* Chabaud, 1958, subsequently raising them to genus level (Chabaud, 1975). He also synonymized *Cyrnea* (Cyrnea) *numidae* Ortlepp, 1938 and *Cyrnea* (Cyrnea) *seurati* Lopéz-Neyra, 1918 with *Cyrnea* (Cyrnea) *parroti* Seurat, 1917. Our specimens of *Cyrnea parroti* collected from *Numida meleagris* in South Africa comply with Ortlepp’s (1938b) description of *C. numidae*, but the arrangement of cephalic structures in apical view is that of *C. parroti*. Not having examined Ortlepp’s (1938b) specimens we adopt the classification of Chabaud (1958) and list Ortlepp’s specimens as *C. parroti*.  

**GENUS SICARIUS** Li, 1934  
Type species: *Sicarius dipterum* (Popova, 1927) Li, 1934  

1. *Sicarius caudatus* Quentin & Wertheim, 1975  

*Numida meleagris*  
Junker & Boomker (2007b), South Africa  

*Pycnonotus capensis*  
Quentin & Wertheim (1975), Israel  

Quentin & Wertheim (1975) described *S. caudatus* from *P. capensis* present in the collection of the “Helmintological Laboratory Jerusalem” and list Jerusalem as locality. It should be noted that *P. capensis* is endemic to South Africa (Lepage 2007). We therefore conclude that the authors were either looking at birds kept in captivity in Israel, making it difficult to determine the geographic origin of the parasites or did not have any information on the original locality if the birds had been collected in South Africa.  

2. *Sicarius renatae* Cancrini, Ballo & Iori, 1991  

*Acryllium vulturinum*  
Cancrini, Ballo & Iori (1991), Somalia  

**Subfamily Habronematinae Chitwood & Wehr, 1932**  

**GENUS CYRNEA** Seurat, 1914  

*Seurocyrnea* Strand, 1929; Skrjabinochona Guschanskaja, 1931; *Chenspirura* Hsiü, 1957 nec Kou, 1958  

Type species: *Cyrnea eurycerca* Seurat, 1914  

1. *Cyrnea eurycerca* Seurat, 1914  

*Alectoris, Coturnix, Francolinus, Phasianus, Merops*  
Yamaguti (1961), Africa, Europe  

*Numida meleagris*  
Ortlepp (1938b), Southern Africa  

*Alectoris rufa* ("Perdix rouge" in Yamaguti [1961])  
Yamaguti (1961), Corsica  

2. *Cyrnea parroti* Seurat, 1917  

*Cyrnea seurati* Lopéz-Neyra, 1918; *Habronema numidae* Ortlepp, 1938; *Cyrnea numidae* (Ortlepp, 1938)  

*Alectoris barbara*  
Yamaguti (1961), Algeria  

*Alectoris rufa*  
Yamaguti (1961), Spain  

*Numida meleagris*  
Ortlepp (1938b), Malawi, South Africa, Swaziland  
Fabiyi (1972), Nigeria  
Vercruysse *et al.* (1985), Burkina Faso  

Chabaud (1958) divided the genus *Cyrnea* into the two subgenera *Procyrnea* Chabaud, 1958 and *Cyrnea* Chabaud, 1958, subsequently raising them to genus level (Chabaud, 1975). He also synonymized *Cyrnea* (Cyrnea) *numidae* Ortlepp, 1938 and *Cyrnea* (Cyrnea) *seurati* Lopéz-Neyra, 1918 with *Cyrnea* (Cyrnea) *parroti* Seurat, 1917. Our specimens of *Cyrnea parroti* collected from *Numida meleagris* in South Africa comply with Ortlepp’s (1938b) description of *C. numidae*, but the arrangement of cephalic structures in apical view is that of *C. parroti*. Not having examined Ortlepp’s (1938b) specimens we adopt the classification of Chabaud (1958) and list Ortlepp’s specimens as *C. parroti*.  

**GENUS SICARIUS** Li, 1934  
Type species: *Sicarius dipterum* (Popova, 1927) Li, 1934  

1. *Sicarius caudatus* Quentin & Wertheim, 1975  

*Numida meleagris*  
Junker & Boomker (2007b), South Africa  

*Pycnonotus capensis*  
Quentin & Wertheim (1975), Israel  

Quentin & Wertheim (1975) described *S. caudatus* from *P. capensis* present in the collection of the “Helmintological Laboratory Jerusalem” and list Jerusalem as locality. It should be noted that *P. capensis* is endemic to South Africa (Lepage 2007). We therefore conclude that the authors were either looking at birds kept in captivity in Israel, making it difficult to determine the geographic origin of the parasites or did not have any information on the original locality if the birds had been collected in South Africa.  

2. *Sicarius renatae* Cancrini, Ballo & Iori, 1991  

*Acryllium vulturinum*  
Cancrini, Ballo & Iori (1991), Somalia  

**Subfamily Histocephalinae Gendre, 1922**  

**GENUS HADJELIA** Seurat, 1916  

*Gilsonia* Gedeoelst, 1919; *Stellabronema* Guschanskaja, 1937; *Sobolevicephalus* Parukhin, 1964  

1. *Hadjelia truncata* (Creplin, 1825)  

*Spiroptera truncata* Creplin, 1825; *Hadjelia inermis* (Gedeoelst, 1919)  

*Aceros corruscatus*  
Ortlepp (1964), Malucca Islands, Indonesia  

*Columba livia*  
Tadros & Iskander (1975), Egypt  

*Guttera edouardi, Numida meleagris*  
Junker & Boomker (2007b), South Africa  

*Tockus erythrornychus, Tockus leucomelas*  
Ortlepp (1964), South Africa  

*Tockus fasciatus semifasciatus*  
Cram (1927, cited in Ortlepp 1964), Africa
Coracias benghalensis, Halcyon smyrnensis, Upupa epops

Singh (1949), India

Chabaud & Campana (1950) synonymized H. inermis with H. truncata. Orlepp (1964) did not follow this and recorded his specimens as H. inermis. Tadros & Iskander (1975) synonymized H. inermis, H. parva and H. thuliieri with H. truncata, designating H. truncata as the new type species of the genus.

Family TETRAMERIDAE Travassos, 1914

Subfamily Tetramerinae Railliet, 1915

GENUS TETRAMERES CREPLIN, 1846

Tropisurus Diesing, 1835; Tropidurus Wiegmann, 1835, preoccupied; Gynaecophila Gubanov, 1950; Petrovimeres Tschertkova, 1953; Microtetrimeres auct.

Type species: Tetramerus paradoxa (Diesing, 1835)

1. Tetramerus fissispina Diesing, 1861
   Acanthophorus horridus Von Linstow, 1876; Acanthophorus tenuis Von Linstow, 1876; Filaria pulicis Von Linstow, 1894
   Alectoris, Anas acuta, Anas clypeata, Anas platyrhynchos, Anas querquedula, Aythya ferina, Bucephala clangula, Columba livia, Cygnus melanocoryphus, Fulica atra, Gallus, Melanitta fusca, Meleagris, Meleagris gallopavo, Mergus merganser, Nycticorax nycticorax, Perdix, Somateria mollissima, Tachybaptus fluviatilis
   Yamaguti (1961), Africa, Canton, Europe, Formosa, Guam, India, Malaya, North and South America, Philippines, Russian Turkestan, Siberia, Turkey

   Domestic chicken
   Le Roux (1926), South Africa
   Poulsen et al. (2000), Ghana
   Magwisha et al. (2002), Tanzania

   Guinea fowl
   Le Roux (1926), South Africa

   Numida meleagris
   Fabiyi (1972), Nigeria
   Hodasi (1976), Ghana
   Verbruyssse et al. (1985), Burkina Faso

2. Tetramerus numida Junker & Boomker 2007
   Numida meleagris
   Junker & Boomker (2007a), South Africa
   Chabaud (1975) divided the genus Tetramerus into the two subgenera Tetramerus (Tetramerus) Creplin, 1846 and Tetramerus (Microtetrimeres) Travassos, 1915. We adopt the view of Anderson (1992) and consider the two as valid genera.

   Superfamily Acuarioidae
   Family Acuariidae (Railliet, Henry & Sisoff, 1912, subfam.)

   Subfamily Acuariinae Railliet, Henry & Sisoff, 1912

   GENUS ACUARIA BREMSEN, 1811

   Chelospirura auct.

   Type species: Acuaria anthuris (Rudolphi, 1819)

HOST/PARASITE CHECK LIST

Order Tinamiformes

Family Tinamidae (Tinamous)

GENUS TINAMUS HERMANN, 1783

Subulura strongylina

GENUS CRYPTURRELLUS BRABOURNE & CHUBB, 1914

Crypturus

Subulura strongylina
Order Galliformes

Domestic chicken
- Mediorhynchus gallinarum
- Postharmostomum gallinum
- Choanoetaenia infundibulum
- Davainea proglottina
- Echinolepis carioca
- Hymenolepis cantaniana
- Raillietina cohnii
- Raillietina echinobothrida
- Raillietina tetragona
- Skrjabinia cesticillus
- Acuaria hamulosa
- Aonchotheca caudinflata
- Ascaridia galli
- Ascaridia lineata
- Ascaridia perspicillum
- Capillaria anatis
- Dispharynx nasuta
- Eucoleus annulatus
- Gongylonema ingluvicola
- Heterakis brevispiculum
- Heterakis dispar
- Mediorhynchus empodius
- Mediorhynchus gallinarum
- Mediorhynchus numidae
- Mediorhynchus selengensis
- Mediorhynchus taeniatus
- Oxyspirura mansoni
- Subulura brumpti
- Subulura differens
- Subulura strongylina
- Subulura suctoria
- Syngamus trachea
- Tetrameres fissispina

Gallinacean birds, galliformes
- Mediorhynchus gallinarum
- Syngamus trachea

Family Numididae (Guineafowls)

Crested guineafowl
- Postharmostomum gallinum

Guineafowl
- Cotugnia crassa
- Cotugnia digonopora
- Numidella numida
- Octopetalum numida
- Porogynia paronai
- Ascaridia galli
- Ascaridia numidae
- Tetrameres fissispina

Genus Numida Linnaeus, 1766

1. Numida meleagris (Linnaeus, 1758) (Helmeted Guineafowl)
   - Phasianus meleagris
   - Numida meleagris galeatus Pallas, 1767
   - Numida galeata
   - Numida meleagris meleagris (Linnaeus, 1758)
   - Numida ptilorhyncha
   - Numida meleagris mitratus Pallas, 1767
   - Numida meleagris marungensis Schalow, 1884
   - Numida frommi, Numida marungensis, Numida meleagris bodelaye, Numida meleagris frommi, Numida meleagris maxim, Numida meleagris rikwae, Numida mitrata frommi, Numida mitrata maximia, Numida mitrata rikwae
   - Mediorhynchus empodius
   - Mediorhynchus gallinarum
   - Mediorhynchus numidae
   - Mediorhynchus selengensis
   - Mediorhynchus taeniatus
   - Oxyspirura mansoni
   - Subulura brumpti
   - Subulura differens
   - Subulura strongylina
   - Subulura suctoria
   - Syngamus trachea
Check list of helminths of guineafowls (Numididae) and host list of parasites

**Check list of helminths of guineafowls (Numididae)**

- Cymea parroti
- Eucoleus annulatus
- Gongylonema congolense
- Gongylonema ingluvicola
- Gongylonema sumani
- Hadjelia truncata
- Heterakis brevispiculum
- Heterakis dispar
- Heterakis gallinarum
- Heterakis vesicularis
- Oxyspirura mansoni
- Sicarius caudatus
- Sicarius renatae
- Subulura acuticauda
- Subulura brumpti
- Subulura dentigera
- Subulura differens
- Subulura strongylina
- Subulura suctoria
- Strongyloides avium
- Syngamus trachea
- Dispharynx nasuta
- Synhimantus spiralis
- Tetrameres fissispina
- Tetrameres numida

**Genus: Guttera Wagler, 1832**

- Numidella numida
- Raillietina pintneri
- Ascaridia numidae

1. Guttera edouardi (Hartlaub, 1867) (Crested Guineafowl)
   - Numida edouardi (Hartlaub, 1867); Guttera pucherani edouardi (Hartlaub, 1867)
   - Mediorhynchus taeniatus
   - Abuladzugnia gutterae
   - Davainea nana
   - Metroliasthes lucida
   - Octopetalum gutterae
   - Octopetalum numida
   - Ortiepoplepis multiuncinata
   - Porogynia paronai
   - Raillietina pintneri
   - Raillietina steinhardti
   - Raillietina tetragona
   - Gongylonema congolense
   - Hadjelia truncata
   - Subulura suctoria

**Genus: Acryllium Gray, 1840**

- Heterakis gallinarum

1. Acryllium vulturinum Gray, 1840 (Vulturine Guineafowl)
   - Cotugnia shohoi
   - Raillietina somaiensis
   - Heterakis tenuicauda
   - Sicarius renatae

**Family ODONTOPHORIDAE (New World quails)**

**Genus Oreortyx Baird, 1858**

- Ortyx in Yamaguti (1961)

1. Oreortyx pictus (Douglas, 1829) (Mountain Quail)
   - Ortyx picta
   - Ascaridia compar
   - Heterakis vesicularis

**Genus Callipepla Wagler, 1832**

- Lophortyx
  - Subulura strongylina

**Genus Colinus Goldfuss, 1820**

- Ascaridia galli
  - Eucoleus annulatus
  - Heterakis vesicularis
  - Heterakis gallinarum
  - Subulura strongylina
  - Synhimantus spiralis

1. Colinus virginianus (Linnaeus, 1758) (Northern Bobwhite)
  - Tetrao virginianus
  - Echinolepis carioca
  - Hymenolepis cantanianna
  - Skrjabinia cesticillus

1a. Colinus virginianus texanus Lawrence, 1853
  - Subulura brumpti

**Genus Odontophorus Vieillot, 1816**

- Subulura strongylina

1. Odontophorus capueira (Spix, 1825) (Spot-winged Wood-quail)
   - Perdix capueira
   - Subulura strongylina

**Family PHASIANIDAE (Partridges, francolins, spurfowls, pheasants, etc.)**

Partridge
- Ascaridia lineata

Pheasant
- Acuaria hamulosa
  - Gongylonema ingluvicola

Turkey
- Dispharynx nasuta

**Genus Meleagris Linnaeus, 1758**

- Acuaria hamulosa
- Ascaridia galli
- Ascaridia lineata
- Eucoleus annulatus
- Gongylonema ingluvicola
- Heterakis vesicularis
- Heterakis gallinarum
- Synhimantus spiralis
1. *Meleagris gallopavo* Linnaeus, 1758 (Wild Turkey, Common Turkey)
   - *Echinolepis carioca*
   - *Hymenolepis cantaniana*
   - *Metroliasthes lucida*
   - *Numidella numida*
   - *Raillietina echinobothrida*
   - *Raillietina tetragona*
   - *Skrjabinia cesticillus*
   - *Ascaridia perspicillum*
   - *Oxyspirura mansoni*

2. *Meleagris ocellata* Cuvier, 1820 (Ocellated Turkey)
   - *Agriocharis ocellata*
   - *Ascaridia galli*

**GENUS *BONASA* Stephens, 1819**
- *Ascaridia galli*
- *Ascaridia lineata*
- *Eucoleus annulatus*
- *Heterakis gallinarum*
- *Subulura strongylina*
- *Synhimanthus spiralis*

1. *Bonasa umbellus* (Linnaeus, 1766) (Ruffed Grouse)
   - *Tetrao umbellus*
   - *Davainea proglottina*
   - *Echinolepis carioca*

**GENUS *TETRASTES* Keyserling & Blasius, 1840**
- *Ascaridia compar*

1. *Tetrastes bonasia* (Linnaeus, 1758) (Hazel Grouse)
   - *Bonasa bonasia, Bonasia bonasia, Tetrao bonasia*
   - *Hispaniolepis fedtschenkoi*
   - *Hymenolepis cantaniana*
   - *Skrjabinia cesticillus*

1a. *Tetrastes bonasia rupestris* (Brehm, 1831)
   - *Ascaridia perspicillum*

**GENUS *TETRAO* Linnaeus, 1758**
- *Aonchotheca caudinflata*
- *Ascaridia compar*
- *Ascaridia galli*
- *Eucoleus annulatus*
- *Heterakis gallinarum*
- *Heterakis vesicularis*
- *Subulura strongylina*

1. *Tetrao urogallus* Linnaeus, 1758 (Western Capercaillie)
   - *Tetrao major*
   - *Skrjabinia cesticillus*
   - *Ascaridia perspicillum*

2. *Tetrao pavo* Bonaparte, 1856 (Black-billed Capercaillie)

**GENUS *LYRURUS* Swainson, 1832**
- *Aonchotheca caudinflata*
- *Ascaridia compar*
- *Ascaridia galli*
- *Capillaria anatis*
- *Eucoleus annulatus*
- *Heterakis gallinarum*

1. *Lyrurus tetrix* (Linnaeus, 1758) (Black Grouse)
   - *Tetrao tetrix*

**GENUS *TYMPANUCHUS* Gloger, 1841**
- *Cupidonia*
- *Ascaridia lineata*
- *Heterakis gallinarum*

1. *Tymanuchus phasianellus* (Linnaeus, 1758) (Sharp-tailed Grouse)
   - *Pedioecetes phasianellus* (Linnaeus, 1758), *Tetrao phasianellus*
   - *Ascaridia galli*
   - *Ascaridia lineata*
   - *Heterakis gallinarum*
   - *Subulura strongylina*

**GENUS *LAGOPUS* Brisson, 1760**
- *Aonchotheca caudinflata*
- *Heterakis gallinarum*
- *Heterakis vesicularis*

1. *Lagopus lagopus* (Linnaeus, 1758) (Willow Ptarmigan)
   - *Tetrao lagopus*
   - *Raillietina tetragona*
   - *Skrjabinia cesticillus*
   - *Subulura suctoria*

1a. *Lagopus lagopus scotica* (Latham, 1787)
   - *Lagopus scotica*
   - *Skrjabinia cesticillus*

2. *Lagopus muta* (Montin, 1781) (Rock Ptarmigan)
   - *Raillietina tetragona*

**GENUS *TETRAGALLUS* Gray, 1832**
1. *Tetragallus caucasicus* (Pallas, 1811) (Caucasian Snowcock)
   - *Tetrao caucasicus*
   - *Hispaniolepis fedtschenkoi*

2. *Tetragallus himalayensis* Gray, 1843 (Himalayan Snowcock)
   - *Megaloperdix nigelli*
   - *Hispaniolepis fedtschenkoi*

**GENUS *ALECTORIS* Kaup, 1829**
- *Caccabis* in Yamaguti (1961)
|                      | GENUS **PERDIX BRISSON**, 1760                                                                                                                                                                                                 |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ascaridia compar     | Aonchotheca caudinflata                                                                                                                                                                                                       |
| Ascaridia galli      | Ascaridia compar                                                                                                                                                                                                               |
| Ascaridia numidae    | Ascaridia galli                                                                                                                                                                                                                 |
| Cyrnea eurycerca     | Capillaria anatis                                                                                                                                                                                                               |
| Heterakis dispar     | Eucoleus annulatus                                                                                                                                                                                                              |
| Heterakis gallinarum | Heterakis vesicularis                                                                                                                                                                                                         |
| Synhimantus spiralis | Heterakis gallinarum                                                                                                                                                                                                             |
| Tetrameres fissispina| Subulura strongylina                                                                                                                                                                                                              |
|                      | Synhimantus spiralis                                                                                                                                                                                                           |
|                      | Tetrameres fissispina                                                                                                                                                                                                             |
| 1. Alectoris barbara (Bonnaterre, 1792) (Barbary Partridge) |                                                                                                                                                                                                                                  |
|                      | Caccabis petrosa, Perdix barbara                                                                                                                                                                                                  |
|                      | Cyrnea parroti                                                                                                                                                                                                                  |
| 2. Alectoris graeca (Meisner, 1804) (Rock Partridge) |                                                                                                                                                                                                                                  |
|                      | Perdix graeca                                                                                                                                                                                                                   |
|                      | Davainea proglottina                                                                                                                                                                                                             |
|                      | Echinolepis carioca                                                                                                                                                                                                               |
|                      | Metroliaastes lucida                                                                                                                                                                                                             |
|                      | Heterakis tenuicauda                                                                                                                                                                                                               |
|                      | Subulura brumpti                                                                                                                                                                                                                  |
|                      | Subulura differens                                                                                                                                                                                                               |
| 2a. Alectoris graeca saxatilis (Bechstein, 1805) |                                                                                                                                                                                                                                  |
|                      | Caccabis saxatilis chukar                                                                                                                                                                                                         |
|                      | Heterakis tenuicauda                                                                                                                                                                                                               |
| Lepage (2007) states that the original Alectoris graeca has been split into four species, namely Alectoris graeca, Alectoris chukar (Gray, 1830), Alectoris philbyi Lowe, 1934 and Alectoris magna (Prjevalski, 1876). |                                                                                                                                                                                                                                  |
| 3. Alectoris rufa (Linnaeus, 1758) (Red-legged Partridge) |                                                                                                                                                                                                                                  |
|                      | Caccabis rufa, Cotumix rufa, Tetrao rufus                                                                                                                                                                                             |
|                      | Metroliaastes lucida                                                                                                                                                                                                               |
|                      | Cyrnea eurycerca                                                                                                                                                                                                                  |
|                      | Cyrnea parroti                                                                                                                                                                                                                  |
|                      | GENUS **FRANCOLINUS STEPHENS**, 1819                                                                                                                                                                                              |
| Ascaridia lineata    |                                                                                                                                                                                                                                  |
| Cyrnea eurycerca     |                                                                                                                                                                                                                                  |
| Heterakis gallinarum |                                                                                                                                                                                                                                  |
|                      | GENUS **SCLEROPTILA BLYTH**, 1852                                                                                                                                                                                                |
| 1. Scleroptila levaillantii (Valenciennes, 1825) (Red-winged Francolin) |                                                                                                                                                                                                                                  |
|                      | Francolinus levaillantii, Perdix levaillantii                                                                                                                                                                                          |
|                      | Gongylonema congolense                                                                                                                                                                                                             |
|                      | GENUS **PTERNISTIS WAGLER**, 1832                                                                                                                                                                                               |
| Subulura suctoria    |                                                                                                                                                                                                                                  |
| 1. Pternistis natalensis (Smith, 1834) (Natal Spurfowl) |                                                                                                                                                                                                                                  |
|                      | Francolinus natalensis, Pternistes natalensis                                                                                                                                                                                          |
|                      | Porogynia paronai                                                                                                                                                                                                                 |
| 2. Pternistis bicalcaratus (Linnaeus, 1766) (Double-spurred Spurfowl) |                                                                                                                                                                                                                                  |
|                      | Francolinus bicalcaratus, Tetrao bicalcaratus                                                                                                                                                                                          |
|                      | Heterakis brevispiculum                                                                                                                                                                                                             |
|                      | Subulura differens                                                                                                                                                                                                                 |
|                      | GENUS **COTURNIX BONNATERRE**, 1791                                                                                                                                                                                               |
|                      | Aonchotheca caudinflata                                                                                                                                                                                                             |
|                      | Ascaridia compar                                                                                                                                                                                                                  |
|                      | Cymea eurycerca                                                                                                                                                                                                                  |
|                      | Heterakis gallinarum                                                                                                                                                                                                               |
|                      | Heterakis vesicularis                                                                                                                                                                                                               |
|                      | Subulura suctoria                                                                                                                                                                                                                  |
| 1. Coturnix coturnix (Linnaeus, 1758) (Common Quail) |                                                                                                                                                                                                                                  |
|                      | Tetrao coturnix                                                                                                                                                                                                                  |
|                      | Dicrocoelium macrostomum                                                                                                                                                                                                             |
|                      | Echinolepis carioca                                                                                                                                                                                                               |
|                      | Hymenolepis cantaniana                                                                                                                                                                                                             |
|                      | Metroliaastes lucida                                                                                                                                                                                                               |
|                      | Skrjabinia cesticillus                                                                                                                                                                                                              |
|                      | Acuaria hamulosa                                                                                                                                                                                                                  |
|                      | Subulura suctoria                                                                                                                                                                                                                  |
| GENUS **ITHAGINIS WAGLER**, 1832 |                                                                                                                                                                                                                                  |
| Ascaridia galli      |                                                                                                                                                                                                                                  |
| GENUS **TRAGOPAN CUVIER**, 1829 |                                                                                                                                                                                                                                  |
| Ceriornis            |                                                                                                                                                                                                                                  |
| Heterakis gallinarum |                                                                                                                                                                                                                                  |
| GENUS **LOPHOPHORUS TEMMINCK**, 1813 |                                                                                                                                                                                                                                  |
| Heterakis gallinarum |                                                                                                                                                                                                                                  |
| Heterakis vesicularis|                                                                                                                                                                                                                                  |
| GENUS **GALLUS BRISSON**, 1760 |                                                                                                                                                                                                                                  |
| Aonchotheca caudinflata |                                                                                                                                                                                                                                  |
| Ascaridia compar     |                                                                                                                                                                                                                                  |
| Ascaridia lineata    |                                                                                                                                                                                                                                  |
| Ascaridia lineata    |                                                                                                                                                                                                                                  |
| Gongylonema congolense |                                                                                                                                                                                                                                  |
Gongylonema ingluvicola
Heterakis vesicularis
Strongyloides avium
Subulura strongylina
Synhimantus spiralis
Tetrameres fissispina

1. Gallus gallus (Linnaeus, 1758) (Red Junglefowl)
   Gallus ferrugineus, Phasianus gallus
   Davainea progolltina
   Echinolepis carioca
   Hispanolepis fedtschenkoi
   Hymenolepis cantaniana
   Metroliasthes lucida
   Raillietina cohni
   Raillietina echinobothrida
   Raillietina tetragona
   Skrjabinia cesticillus
   Acuaria hamulosa
   Dispharynx nasuta
   Gongylonema sumani
   Oxyspirura mansoni

1a. Gallus gallus bankiva Temminck, 1813
    Metroliasthes lucida
    Raillietina echinobothrida

GENUS LOPHURA FLEMING, 1822

Gennaeus
Heterakis gallinarum

1. Lophura nycthemera (Linnaeus, 1758) (Silver Pheasant)
   Euplocamus nycthemerus, Gennaeus nycthemerus, Phasianus nycthemerus
   Heterakis vesicularis

GENUS SYRMATICUS WAGLER, 1832

Graphophasianus
Eucoleus annulatus

1. Symmaticus soemmeringii (Temminck, 1830) (Copper Pheasant)
   Graphophasianus soemmeringii, Phasianus soemmeringii
   Heterakis gallinarum

GENUS PHASIANUS LINNAEUS, 1758

Aonchotheca caudinflata
Ascaridia galli
Ascaridia lineata
Capillaria anatis
Cyrena eurycerca
Eucoleus annulatus
Heterakis gallinarum
Synhimantus spiralis

1. Phasianus colchicus Linnaeus, 1758 (Common Pheasant, Ring-necked Pheasant)
   Hymenolepis cantaniana
   Raillietina echinobothrida

   1a. Phasianus colchicus mongolicus Brandt, 1844
       Phasianus mongolicus turkestanicus
       Subulura suctoria

   1b. Phasianus colchicus principalis Sclater, 1885
       Phasianus principalis
       Subulura suctoria

GENUS CHRYSOLOPHUS GRAY, 1834

Thaumalea
Aonchotheca caudinflata
Eucoleus annulatus
Heterakis gallinarum

GENUS POLYPELECTRON TEMMINCK, 1807

Heterakis vesicularis

GENUS PAVO LINNAEUS, 1758

Heterakis gallinarum

1. Pavo cristatus Linnaeus, 1758 (Indian Peafowl)
   Hymenolepis cantaniana
   Raillietina tetragona
   Ascaridia perspicillum
   Oxyspirura mansoni

2. Pavo muticus Linnaeus, 1766 (Green Peafowl)
   Raillietina tetragona

Order Anseriformes

Syngamus trachea

Family ANATIDAE (Ducks, geese and swans)

Duck
Ascaridia galli
Ascaridia lineata

Goose
Ascaridia lineata

GENUS ANSER BRISSON, 1760

Cotugnia digonopora
Ascaridia lineata
Capillaria anatis
Heterakis dispar
Heterakis gallinarum

1. Anser cygnoides (Linnaeus, 1758) (Swan Goose)
   Cygnopsis cygnoides
   Heterakis dispar

GENUS BRANTA SCOPOLI, 1769

Heterakis dispers

1. Branta bernicla (Linnaeus, 1758) (White-bellied Brant)
Check list of helminths of guineafowls (Numididae) and host list of parasites

**Anas bernicla**  
“Bernicla”  
*Heterakis dispar*

**Genus Cygnus Bechstein, 1803**
1. *Cygnus atratus* (Latham, 1790) (Australian Black Swan)  
   *Chenopsis atrata*  
   *Heterakis vesicularis*
2. *Cygnus melanocoryphus* (Molina, 1782)  
   *Tetrameres fissispina*

**Genus Chloephaga Eyton, 1838**  
*Heterakis dispar*

**Genus Tadorna Boie, 1822**  
*Todorna*  
*Heterakis dispar*

**Genus Cairina Fleming, 1822**
1. *Cairina moschata* (Linnaeus,1758) (Muscovy Duck)  
   *Gongylonema congolense*

**Genus Anas Linnaeus, 1758**
1. *Anas platyrhynchos* Linnaeus, 1758 (Mallard)  
   *Anas boschas*  
   *Tetramerers fissispina*
2. *Anas clypeata* Linnaeus, 1758 (Northern Shoveler)  
   *Anas spathula, Spatula clypeata*  
   *Tetrameres fissispina*
3. *Anas acuta* Linnaeus, 1758 (Northern Pintail)  
   *Dafila acuta*  
   *Ascaridia perspicillum*  
   *Tetramerers fissispina*
   According to Lepage (2007) *A. acuta* has been split into *A. acuta* and *Anas eatoni*, but some authors consider *A. eatoni* a subspecies of *A. acuta*. Peterson (1999) lists the two as separate species.
4. *Anas querquedula* Linnaeus, 1758 (Garganey)  
   *Querquedula querquedula*  
   *Capillaria anatis*  
   *Tetrameres fissispina*

**Genus Aythya Boie, 1822**
1. *Aythya ferina* (Linnaeus, 1758) (Common Pochard)

**Genus Somateria Leach, 1819**
1. *Somateria mollissima* (Linnaeus, 1758) (Common Eider)  
   *Anas mollissima*  
   *Tetrameres fissispina*

**Genus Melanitta Boie, 1822**
*Oedemia, Oidemia*  
1. *Melanitta fusca* (Linnaeus, 1758) (Velvet Scooter)  
   *Anas fusca, Oidemia fusca*  
   *Tetrameres fissispina*

**Genus Clangula Leach, 1819**
1. *Clangula hyemalis* (Linnaeus, 1758) (Oldsquaw, Long-tailed Duck)  
   *Anas hyemalis, Harelda hyemalis, Ereunetes occidentalis*  
   *Capillaria anatis*

**Genus Bucephala Baird, 1858**
1. *Bucephala clangula* (Linnaeus, 1758) (Common Gold-eneye)  
   *Anas clangula, Clangula clangula, Glaucionetta clangula*  
   *Tetrameres fissispina*

**Genus Mergus Linnaeus, 1758**
1. *Mergus merganser* Linnaeus, 1758 (Common Merganser)  
   *Tetrameres fissispina*

**Order Turniciformes**
**Family Turnicidae (Buttonquail)**
**Genus Turnix Bonnaterre, 1791**
1. *Turnix suscitator* (Gmelin, 1789) (Barred Buttonquail)  
   *Tetrao suscitator*  
   *Hymenolepis cantaniana*

**Order Piciformes**
**Family Syngamiidae (Buttonquail)**
**Genus Syngamus Linnaeus, 1758**
1. *Syngamus trachea*  

**Order Galbuliformes**
**Family Buccoidea (Puffbirds)**
**Genus Bucconia Brissin, 1760**
1. *Subulura strongylinea*  

**Genus Maloceoptila Gray, 1841**
1. *Subulura strongylinea*
Genus *Nonnula* Sclater, 1854
   Subulura strongylina

Genus *Monasa* Vieillot, 1816
   Subulura strongylina

Genus *Chelioptera* Gould, 1837
   Subulura strongylina

Order Bucerotiformes
Family Bucerotidae (Hornbills)
Genus *Aceros* Hodgson, 1844
1. Aceros corrugatus (Temminck, 1832) (Wrinkled Hornbill)
   Buceros corrugatus, Rhynicerus corrugatus
   Hadjelia truncata

Genus *Tockus* Lesson, 1830
1. Tockus erythropryncus (Temminck, 1823) (Red-billed Hornbill)
   Buceros erythropryncus
   Hadjelia truncata

2. Tockus fasciatus semifasciatus (Hartlaub, 1855) (Allied Hornbill)
   Lophoceros semifasciatus
   Hadjelia truncata

3. Tockus leucomelas (Liechtenstein, 1842) (Southern Yellow-billed Hornbill)
   Buceros leucomelas
   Hadjelia truncata

   Some authors consider *T. leucomelas* a subspecies of *Tockus flavirostris* (Lepage 2007)

Order Upupiformes
Family Upupidae (Hoopoes)
Genus *Upupa* Linnaeus, 1758
1. Upupa epops Linnaeus, 1758 (Hoopoe)
   Hadjelia truncata

Family Coraciidae (Rollers)
Genus *Coracias* Linnaeus, 1758
1. Coracias benghalensis (Linnaeus, 1758) (Indian Roller)
   Corvus benghalensis
   Hadjelia truncata

Genus *Halcyon* Swainson, 1821
1. Halcyon smyrnensis (Linnaeus, 1758) (White-throated Kingfisher)
   Hadjelia truncata

Family Meropidae (Bee-eaters)
Genus *Merops* Linnaeus, 1758
   Cymea eurycerca

Order Cuculiformes
Family Cuculidae (Cuckoos, coucals, anis, roadrunners, couas, etc.)
Genus *Cuculus* Linnaeus, 1758
   Subulura strongylina

Genus *Centropus* Illiger, 1811
1. Centropus phasianinus (Latham, 1802) (Pheasant Coucal)
   Cuculus phasianinus
   Subulura differens

Order Strigiformes
Family Strigidae (Typical owls)
Genus *Strix* Linnaeus, 1758
   Heterakis dispar
   Heterakis gallinarum

Genus *Surnia* Dumeril, 1805
   Heterakis dispar

Genus *Glaucidium* Boie, 1826
   Heterakis dispar

Family Nyctibiidae (Potoos)
Genus *Nyctibius* Vieillot, 1816
   Subulura suctica

Order Columbiformes
Family Columbidae (Pigeons and doves)
Genus *Columba* Linnaeus, 1758
   Ascaridia lineata

Genus *Columba* Linnaeus, 1758
1. Columba livia Gmelin, 1785 (Rock Pigeon)

Family Caprimulgidae (Nightjars)
Genus *Podager* Wagler, 1832
   Subulura strongylina
   Subulura suctica

Genus *Caprimulgus* Linnaeus, 1758
   Subulura strongylina
   Subulura suctica

Order Columbiformes
Family Caprimulgidae (Pigeons and doves)
Pigeon
   Ascaridia lineata

Genus *Columba* Linnaeus, 1758
   Aonchotheca caudinflata
   Synhimantus spiralis
1. Columba livia Gmelin, 1785 (Rock Pigeon)
Check list of helminths of guineafowls (Numididae) and host list of parasites

**GENUS STREPTOPELIA BONAPARTE, 1855**

*Spilopelia*
- *Ascaridia galli*
- 1. *Streptopelia orientalis* (Latham, 1790) (Oriental Turtle-Dove)
  - *Columba orientalis*, *Turtur orientalis*
  - *Subulura brumpti*

**Order Gruiformes**

**Family RALLIDAE (Rails, crakes, moorhens and coots)**

**GENUS FULICA LINNAEUS, 1758**

1. *Fulica atra* Linnaeus, 1758 (Common Coot)

**Family OTIDIDAE (Bustards and korhaans)**

Yamaguti (1961) lists *Aonchotheca caudinflata*, *Heterakis gallinarum* and *Heterakis vesicularis* from *Otis* without giving the host’s species name. It is therefore not clear whether *Otis* refers to the current genus *Otis*, *Ardeotis*, *Neotis* or *Chlamydotis*.

**Order Charadriiformes**

**Family PTEROCLIDIAE (Sandgrouse)**

**GENUS PTEROCLES TEMMINCK, 1815**

- *Calopterocles*
  - *Heterakis gallinarum*

  1. *Pterocles exustus* Temminck, 1825 (Chestnut-bellied Sandgrouse)
    - *Pteroclidurus exustus*, *Pterocles senegalensis*
    - *Raillietina cohni*
    - Lepage (2007) lists *Pterocles senegalensis* as synonym for *Pterocles exustus*.

  2. *Pterocles orientalis arenarius* (Pallas, 1775) (Eastern Black-bellied Sandgrouse)
    - *Pterocles arenarius*
    - *Raillietina cohni*
    - Lepage (2007) and Peterson (1999) list *Pterocles arenarius* as subspecies of *Pterocles orientalis* (Linnaeus, 1758).

**Family JACANIDAE (Jacanas)**

**GENUS METOPIDIUS WAGLER, 1832**

- *Synhimantus spiralis*

**Family BURHINIDAE (Thick-knees)**

**GENUS BURHINUS ILLIGER, 1811**

- *Oedicnemus*
  - *Subulura suctoria*

  1. *Burhinus oedicnemus* (Linnaeus, 1758) (Eurasian Thick-knee)
    - *Charadrius oedicnemus*, *Oedicnemus crepitans*
    - *Mediorhynchus taeniatus*

**Family CHARADRIIDAE**

(Plovers, dotterels, lapwings)

**GENUS VANELLUS BRISSON, 1760**

1. *Vanellus cinereus* (Blyth, 1842) (Grey-headed Lapwing)
    - *Hoplopterus cinereus*, *Microsarcops cinereus*, *Pluvianus cinereus*
    - *Davainea nana*

**Order Falconiformes**

**Family ACCIPITRIDAE (Eagles, hawks, buzzards, kites, vulures)**

**GENUS ACCIPITER BRISSON, 1760**

- *Synhimantus spiralis*

**Order Ciconiiformes**

**Family PODICIPEDIDAE (Grebes)**

**GENUS TACHYBAPTUS REICHENBACH, 1853**

1. *Tachybaptus novaehollandiae* (Stephens, 1826) (Australian Grebe)
Family ARDEIDAE (Herons, egrets and bitterns)
“Ardeiformes”
Syngamus trachea

GENUS Ardea Linnaeus, 1758
Mediorhynchus empodius

GENUS Nycticorax Forster, 1817
1. Nycticorax nycticorax (Linnaeus, 1758) (Black-crowned Night-Heron)
Ardea nycticorax
Tetrameres fissispina

Family PELECANIDAE (Pelicans)
“Pelicaniformes”
Syngamus trachea

Family CICONIIDAE (Storks)
GENUS Ciconia Brisson, 1760
Synhimantus spiralis

Order Passeriformes
Syngamus trachea

Family CORVIDAE (Crows and ravens)
GENUS Corvus Linnaeus, 1758
Heterakis gallinarum
Synhimantus spiralis

Family PYCNONOTIDAE
GENUS Pycnonotus Boie, 1826
1. Pycnonotus capensis (Linnaeus, 1766) (Cape Bulbul)
Sicarius caudatus

Family MUSCICAPIDAE (Old World flycatchers)
GENUS Turdus Linnaeus, 1758
Aonchotheca caudinflata
Synhimantus spiralis
1. Turdus viscivorus Linnaeus, 1758 (Mistle Thrush)
Acanthiza agilis
2. Turdus migratorius Linnaeus, 1766 (American Robin)
Planesticus migratorius
Synhimantus spiralis

Family STURNIDAE (Starlings)
GENUS Sturnus
Aonchotheca caudinflata

Family PASSERIDAE (Old World sparrows, sifflines and relatives)
GENUS Passer Brisson, 1760
Aonchotheca caudinflata
Synhimantus spiralis
1. Passer domesticus (Linnaeus, 1758) (House Sparrow)
Fringilla domestica
Dispharynx nasuta

GENUS Euplectes Swainson, 1829
1. Euplectes orix (Linnaeus, 1758) (Red Bishop)
Pyromelana oryx
Subulura differens

Family FRINGILLIDAE (Canaries and buntings)
GENUS Quiscalus Vieillot, 1816
Synhimantus spiralis

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