WebTable 1. Partial list of parasites identified in archaeological and paleontological animal coprolites

Parasite	Host	Time period	Technique used to identify parasite	Source
Eggs: Cestoda Possible developing larva: Cestoda	Shark	~270 million years BP	Thin sectioning, optic microscopy	Dentzien-Dias *et al*. (2013)
Cysts: *Entamoebites antiquus* Eggs: *Digenites proterus* (Trematoda), *Ascarites priscus, Ascarites gerus* (Nematoda)	Dinosaurian, possibly *Megalosaurus dunkeri*	Early Cretaceous	Carbonate removal; rehydration; centrifugation; removal of silicates, clay, and quartz; optical microscopy (Nikon Optiphot)	Poinar and Boucot (2006)
Eggs: *Toxocara* sp	Likely *Pachycrocuta brevirostris*	1.2 million years BP	Thin sectioning, petrographic microscopy under PPL and XPL	Perri *et al*. (2017)
Eggs: *Macrocanthorhynchus hirudinaceus*	Canine	4th–5th century CE	Rehydration, light microscopy	Mowlavi *et al*. (2015)
Eggs: Anoplocephalid cestode, nematode, dioctophymatid	Tentative canid	6540 ± 110 years BP	Rehydration, spontaneous sedimentation, light microscopy	Fugassa *et al*. (2013)
Eggs: Anoplocephalid, possibly *Monoecocestus* or *Andrya*	*Lagidium viscacia*	Holocene and Late Holocene, ^{14}C dating	Rehydration, homogenization, spontaneous sedimentation, light microscopy	Beltrame *et al*. (2013)
Eggs: *Trichurus* sp	Cervidae, likely *Mazama* or *Ozotoceros*	1040 ± 50 years BP	Rehydration, optical microscopy	Sianto *et al*. (2012)
Eggs: *Diphyllobothrium* sp (Cestoda), *Toxocara canis* (Nematoda), *Trichuris vulpis* (Nematoda), *Spirocera lupi* (Nematoda)	*Canis familiaris*	700–1476 CE	Partial necropsy of mummified remains, rehydration, compound microscopy	Richardson *et al*. (2012)
Eggs: *Trichurus* sp (Nematoda), *Heteroxynema viscaciae* (Nematoda), *Helminthoxys* sp (Nematode), unidentified nematode	*Lagidium viscacia*	9240 ± 130 years BP to 2540 ± 80 years BP	Rehydration, homogenization, spontaneous sedimentation, light microscopy	Beltrame *et al*. (2016b)
Eggs: Dicrocoelidae	Tentative ursid	>550,000 years BP	Rehydration, filtration, sedimentation, flotation	Jouy-Avantin *et al*. (1999)
Egg: nematode of the pinworm family Heteroxynematidae, ascarid-like	Cynodont	Upper Triassic (ca 240 million years ago)	Sampled from exterior and interior, optical microscopy	Hugot *et al*. (2014)
Eggs: Digenean, *Metastrongylus* sp, strongylid-type, *Nematodirus* sp, *Trichuris* sp, *Dioctophyma* sp Oocysts: coccidian, *Eimeria* sp, *Isopara* sp	*Pudu puda* and/or *Hippocamelus bisulcus*	2370 ± 70 to 990 ± 60 years BP	Rehydration, homogenization, spontaneous sedimentation, light microscopy (Zeiss Primo Star)	Beltrame *et al*. (2017)
Eggs and larvae: *Strongyloides ferreirai*	*Kerodon rupestris*	8000–2000 years BP, ^{14}C and relative dating	Rehydration	Araújo *et al*. (1989)

Eggs: two helminth eggs, one identified as *Ascarites rufferi*	Herbivorous cynodont	~240 million years BP	Stereomicroscopy, sampled from exterior and interior, demineralization bright field microscopy	Da Silva *et al*. (2014)
Eggs: similar to eggs of tapeworm ring, oxyurid, and ascarid	Dog	Beginning of the 1st millennium BCE, Early Iron Age	Rehydration, 20 and 40 magnifying phase-contrast microscopy (Nikon)	Toker *et al*. (2005)
Eggs: Anoplocephalidae (Cestoda), *Pterygodermatites* (Nematoda), *Monoecocestus* sp (Cestoda) Larva: likely *Trichosomoides crassicauda*	Rodents	212 ± 35 years BP	Rehydration, incubation, observed at 40× magnification	Sardella and Fugassa (2009a)
Pollen: cryptic root-parasite *Dactylanthus taylorii*	Kakapo (*Strigops habroptilus*)	933–800 years BP, ^{14}C dating	Sampling from interior, acetolysis, microscopy	Wood *et al*. (2012)
Eggs: *Heteroxynema* (*Cavioxyura*) *viscaciae* (Nematoda), *Viscachataenia quadrata* (Cestoda), *Monoecocestus* sp (Cestoda)	Tentatively *Lagidium viscacia*	13,844 ± 75 to 1416 ± 37 years BP, ^{14}C dating	Rehydration, homogenization, spontaneous sedimentation, light microscopy	Beltrame *et al*. (2012)
Egg: *Trichuris* sp (Nematoda), tentative *Paraspidodera uncinata*, (Nematoda), *Eucoleus* sp (Nematoda)	Tuco-tuco (*Ctenomys* spp)	7920 ± 130 years BP	Rehydration, homogenization, spontaneous sedimentation, light microscopy	Sardella and Fugassa (2009b)
Eggs: *Dicrocoelium dendriticum*, *Capillaria* sp, taeniid, similar to Anoplocephalidae, similar to *Toxocara* spp	Sheep and carnivore	3200–1800 BCE, Bronze Age	Rehydration, light microscopy	Makki *et al*. (2017)
Eggs: *Spirometra* spp, *Toxocara cati*, *Spirurida*, *Onicola* sp, oxyurid, *Calodium* cf *hepaticum*, *Trichuris* cf *muris*, *Trichuris* sp, other Trichuridae Larvae: Nematode	Feline and prey of felines	9150 ± 60 to 410 ± 40 years BP	Rehydration, homogenization, spontaneous settling, optical microscopy	Sianto *et al*. (2014)
Eggs: *Trichuris*	*Kerodon rupestris*	30,000–8450 years BP	Rehydration, spontaneous sedimentation	Ferreira *et al*. (1991)
Eggs: *Trichuris* sp, *Calodium* sp, *Eucoleus* sp, *Echinocoleus* sp, unidentified capillariid, *Monoecocestus*	Rodents	6700 ± 70, 4900 ± 70, and 3440 ± 70 years BP	Rehydration, homogenization, spontaneous sedimentation, photographed under magnification	Sardella *et al*. (2010)
Eggs: *Lamanema chavezi* or *Nematodirus lamae*, unidentified capillariids, *Strongylus*-type Oocysts: *Eimeria macusaniensis*	Camelids	9640 ± 190 to 3920 ± 80 years BP, ^{14}C dating	Rehydration, spontaneous sedimentation, microscopy	Taglioretti *et al*. (2015)
Eggs: *Gigantorhynchus echinodiscus*	*Tamandua tetradactyla* or *Myrmecophaga tridactyla*	2955 BCE to 625 CE, ^{14}C dating	Rehydration, spontaneous sedimentation	Ferreira *et al*. (1989)

Eggs: similar to Heterakoidea spp, undetermined Nematoda, likely Trichinellidae (cf *Capillaria*) DNA: *Cryptosporidium*, Eimeriorina, Heterakoidea, Trichostrongylidae, Echinostomida	South Island giant moa (*Dinornis robustus*), little bush moa (*Anomalopteryx didiformis*), heavy-footed moa (*Pachyornis elephantopus*), upland moa (*Megalapteryx didinus*)	Holocene, ^{14}C dating	Microscopy, aDNA	Wood *et al*. (2013)
Larvae: nematode	Hyaenidae	Lower and Middle Pleistocene, 1.5 million–30,000 years BP	Disaggregation, spontaneous sedimentation	Ferreira *et al*. (1993)
Egg: *Trichuris*, likely *Monoecocestus*, *Oesophagostomum*, *Calodium* (likely *Calodium hepaticum*), *Nematodirus* Oocyst: likely *Eimeria macusaniensis*	Feline, coprolite morphology similar to *Puma concolor*	6540 ± 110 years BP	Rehydration, homogenization, spontaneous sedimentation, microscopy	Fugassa *et al*. (2009)
Sinusidal trails: nematodes Possible body fossil: nematode	Vertebrate: possible durophagous sauropterygian reptile, possible Actinopterygian fish *Colobodua*, possible nothosaurid	Lower Triassic	Washing, binocular microscopy (MZS 200 T), thin sectioning	Brachaniec *et al*. (2015)
Egg: *Trichuris vulpis*, unidentified egg	Domestic dogs	1230 ± 40 years BP, ^{14}C dating	Rehydration, formalin/acetic preservation, spontaneous sedimentation, microscopy	Fugassa *et al*. (2011)
Eggs: *Syphacia* sp, *Trichosomoides crassicauda*, *Trichuris* sp	Rodent	565 CE, Sassanid Era	Rehydration, formaldehyde fungi inhibition, light microscopy	Mowlavi *et al*. (2014)
Eggs: two unidentified helminth species Juveniles: *Agamofiliaria oxyura*, *Strongyloides shastensis* Oocysts: *Archeococcidia*, *Archeococcidia antiquus*	Shasta ground sloth (*Nothrotheriops shastensis*)	One dung ball dated to 10,500 ± 180 years BP, ^{14}C dating	Breaking, rehydration, filtration, wet mounting or flotation, microscopy (Zeiss Universal Photomicroscope with bright-field and Nomarski-interference objectives)	Schmidt *et al*. (1992)
Eggs: *Physaloptera* sp, *Uncinaria* sp, *Prostenorchis* sp, *Paragonimus* sp, *Ancylostoma* (probably *Ancylostoma conepati*), *Eucoleus* (probably *Eucoleus aerophilus*), *Trichostrongylus* (probably *Trichostrongylus colubriformis*), Ascarididae, *Monoecocestus* sp	Carnivora, similar in morphology, diet, and measurements to hog-nosed skunk (*Conepatus shinga*) and *Lycalopex griseus*	1980 ± 80 to 1740 ± 60 years BP, ^{14}C dating	Rehydration, homogenization, spontaneous sedimentation, light microscopy	Beltrame *et al*. (2016a)
Eggs: *Heteroxynema* sp, *Trichuris* sp	Caviomorpha, species unknown	10,620 ± 40 to 9390 ± 40 years BP	Rehydration, homogenization, spontaneous sedimentation, light microscopy	Sardella and Fugassa (2011)

Notes: BP = before present; CE = common era; BCE = before common era.

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