pathogens

MDPI

Supplementary Information

Table 1. Haemosporidian parasite lineages identified in this study, and records of their occurrence on MalAvi Database. M, migratory; R, resident.

This Study		Malavi Database		
Lineage (Genbank n°)	**Host**	**Hosts**	**Country**	**Reference Name**
pBASCUL01 (MT724400)	***R: Basileuterus culicivorus***			
pCOLL4 (DQ368374)	*M: Elaenia albiceps*	*Carduelis spinus, Lanius collurio, Loxia curvirostra, Sturnus vulgaris*	Russia	[1], [2]
		Coryphistera alaudina, Gnorimopsar chopi, Limnornis curvirostris, Mimus saturninus, Poospiza lateralis, Stephanophorus diadematus	Uruguay	[3]
		Ficedula albicollis	Sweden Hungary	[4], [5] [6],
		Cyclarhis gujanensis *Dolichonyx oryzivorus* *Foudia omissa, Hartlaubius auratus* *Pycnonotus barbatus*	Brazil United States Madagascar Benin	[7] [8] [9] [10]
pCONLIN16 (JX021452)	*R: Conopophaga lineata*	*Basileuterus flaveolus*, ***Conopophaga lineata***	Brazil	[11]
pCURCUR01 *P. homopolare* (pTURFAL01) (MT724472)	*R: Lochmias nematura*	***Curaeus curaeus, Turdus falcklandii***	Argentina	[7]
pDENPET03 (KU562464) *P. nucleophilum*	*M: Elaenia albiceps* *R: Troglodytes aedon* *M: Turdus flavipes* *M: Vireo olivaceus* *R: Zonotrichia capensis*	*Alopochen aegyptiacus, Ammodramus humeralis, Arremon taciturnus, Basileuterus flaveolus, Basileuterus leucoblepharus, Cacicus solitarius, Cantorchilus longirostris, Coereba flaveola, Colaptes melanochloros, Coryphistera alaudina, Coryphospingus pileatus, Cyclarhis gujanensis, Cygnus atratus, Cypsnagra hirundinacea, Formicivora melanogaster, Guaruba guarouba, Gubernatrix cristata, Hemithraupis guira, Mimus saturninus, Myiarchus swainsoni, Myiothlypis flaveola, Neothraupis fasciata, Netta erythrophthalma, Pachyramphus polychopterus, Parula pitiayumi, Passer*	Brazil	[7], [11], [12], [13], [14], [15], [16], [17]; [18], [19]

		domesticus, Phoenicopterus chilensis, Pipile jacutinga, Psarocolius decumanus, Ramphocelus carbo, Ramphastos toco, Ramphastos vitellinus, Rynchops niger, Saltator coerulescens, Schoeniophylax phryganophilus, Spheniscus magellanicus, Synallaxis frontalis, Thamnophilus nigrocinereus, Thryothorus longirostris, Trichothraupis melanops, Turdus albicolis, Turdus leucomelas, Turdus rufiventris, Volatinia jacarina, Zonotrichia capensis		
		Anas discors, ***Dendroica petechia,*** *Dolichonyx oryzivorus, Dumetella carolinensis, Geothlypis trichas, Petrochelidon pyrrhonota, Riparia riparia, Setophaga petechia, Turdus migratorius, Vireo griseus*	United States	[8], [20], [21], [22], [23], [24], [25]
		Basileuterus culicivorus, Basileuterus leucoblepharus, Cranioleuca pyrrhophia, Gnorimopsar chopi, Zonotrichia capensis	Uruguay	[3]
		Automolus rufipileatus, Arremon taciturnus, Cyphorhinus arada, Hypocnemis subflava, Pipra fasciicauda, Ramphocelus carbo, Turdus hauxwelli, Xiphorhynchus ocellatus	Peru	[16]
		Carduelis barbata *Dendroica coronata*	Argentina Canada	[7] [26]
		Cacicus cela, Cacicus haemorrhous, Diopsittaca nobilis, Volatinia jacarina	Guyana	[3]
pELAALB07 (MT724471)	***M: Elaenia albiceps***			
pGEOTRI01 (MF817777)	*R: Geothlypis aequinoctialis*	*Catharus ustulatus, Dendroica magnólia, Dendroica palmarum,* ***Geothlypis trichas,*** *Helmitheros vermivorum, Melospiza lincolnii*	United States	[20], [23], [25], [27]
		Atlapetes albinucha *Euneornis campestris* *Melospiza melodia. Zonotrichia albicollis* *Seiurus noveboracensis*	Colombia Unknown Canada Venezuela	[28] [29] [30], [31] [23], [32], [33],
pLEAMA01 (JX021454)	*R: Conopophaga lineata*	***Leptopogon amaurocephalus*** *Conopophaga lineata*	Brazil	[11]

pLEPCOR05 (pLECOR04) (KU236434) (pVOLJAC03)	*R: Tachyphonus coronatus* *M: Elaenia albiceps*	*Coryphospingus pileatus,* ***Lepidothrix coronata,*** *Volatinia jacarina* *Tangara schrankii*	Brazil Peru	[7], [17], [34], [35] [7]
pPADOM09 (AF069611) *P. elongatum*	*M: Elaenia albiceps*	*Ammodramus humeralis, Anser cygnoides, Asthenes pyrrholeuca, Basileuterus culicivorus, Carduelis barbata, Cnemotriccus fuscatus, Coryphospingus cucullatus, Coryphospingus pileatus, Dendrocolaptes certhia, Donacobius atricapilla, Elaenia albiceps, Elaenia cristata, Elaenia spectabilis, Furnarius leucopus, Haplospiza unicolor, Lathrotriccus euleri Myiarchus swainsoni, Myiarchus tyrannulus, Myiopagis viridicata, Myiophobus fasciatus, Neothraupis fasciata, Paroaria capitata, Passer domesticus, Pheugopedius genibarbis, Pitangus sulphuratus, Puffinus puffinus, Ramphotrigon ruficauda, Rhytipterna simplex, Saltator coerulescens, Spheniscus magellanicus, Synallaxis scutata, Tachyphonus coronatus, Tachyphonus cristatus, Tachyphonus phoenicius, Thraupis palmarum, Thryothorus genibarbis, Trichothraupis melanops, Troglodytes aedon, Troglodytes musculus, Tyrannus melancholicus, Zonotrichia capensis*	Brazil	[7], [11], [12], [13], [15], [16], [17], [18], [36]
		Dendroica coronata, Dolichonyx oryzivorus, Geothlypis trichas, Larosterna inca, Mniotilta varia, Passer domesticus, Tachycineta thalassina	United States	[8], [22], [27], [37], [38]
		Gnorimopsar chopi, Pseudoleistes guirahuro, Stephanophorus diadematus, Tangara preciosa, Troglodytes aedon, Turdus rufiventris	Uruguay	[3], [37]
		Basileuterus culicivorus, Coryphospingus cucullatus, Elaenia albiceps, Elaenia mesoleuca, Troglodytes aedon, Zonotrichia capensis	Argentina	[7], [39]
		Elaenia albiceps, Troglodytes musculus	Chile	[40]
		Campylorhynchus yucatanicus *Troglodytes aedon*	Unknown Peru	[29] [41]
pPADOM11 (HM146899)	*M: Elaenia albiceps*	*Aegolius acadicus, Agelaius phoeniceus, Baeolophus bicolor, Cardinalis cardinalis, Carduelis*	United States	[8], [12], [25], [27], [38], [42], [43], [44], [45], [46], [47],

		tristes, Carpodacus mexicanus, Colaptes auratus, Dolichonyx oryzivorus, Dumetella carolinensis, Gavia immer, Quiscalus quiscula, Melospiza melodia, ***Passer domesticus,*** *Passerina cyanea, Pheucticus ludovicianus, Sialia sialis, Somateria spp, Spheniscus demersus, Spizella passerina, Spizella pusilla, Strix varia, Turdus migratorius*		
		Basileuterus flaveolus, Camptostoma obsoletum, Campylorhamphus trochilirostris, Coereba flaveola, Coryphospingus pileatus, Dacnis cayana, Neothraupis fasciata, Passer domesticus, Polioptila plúmbea, Saltator similis, Sittasomus griseicapillus, Tachyphonus phoenicius, Tachyphonus rufus, Thlypopsis sordida, Trichothraupis melanops, Volatinia jacarina	Brazil	[7], [11], [12], [16], [17],
		Cacicus cela, Cyanocompsa cyanoides, Saltator grossus, Saltator maximus	Guyana	[3]
		Melospiza melodia, Tachycineta bicolor	Canada	[30], [49]
		Catharus minimus *Chrysomus ruficapillus, Polioptila dumicola* *Mniotilta varia, Turdus fumigatus, Vireo griseus* *Volatinia jacarina*	Colombia Uruguay Unknown Peru	[49] [3] [29] [16]
pPYLEU01 (JX021484)	*R: Dysithamnus mentalis*	*Dysithamnus plumbeus,* ***Pyriglena leucoptera***	Brazil	[11]
pRAMCAR05 (KU562679)	*M: Haplospiza unicolor*	***Ramphocelus carbo***	Brazil	[16]
pSPMAG06 (HM031936) *P. lutzi*	*R: Turdus leucomelas*	*Musophaga violacea,* ***Spheniscus magellanicus*** *Turdus rufiventris*	Brazil	[13], [50], [51], [7], [52]
pTARUF01 (JX021475)	*R: Tachyphonus coronatus*	*Basileuterus flaveolus, Saltator similis,* ***Tachyphonus rufus,*** *Tangara cayana, Thraupis palmarum*	Brazil	[7], [11],
pTRMEL02 (JX021468)	*M: Elaenia mesoleuca*	*Zonotrichia capensis*	Argentina	[39]
		Anabazenops fuscus, ***Trichothraupis melanops,*** *Vireo olivaceus, Zonotrichia capensis*	Brazil	[11]
pTUMIG03 (KU562788)	*R: Turdus rufiventris*	*Catharus ustulatus, Empidonax hammondii, Hylocichla mustelina, Icterus galbula, Larosterna inca,*	United States	[20], [23], [24], [25], [27], [38], [45], [54],

		Regulus calêndula, Sturnus vulgaris, Toxostoma rufum, ***Turdus migratorius,*** *Vermivora celata*		
		Spheniscus magellanicus, Turdus albicollis, Turdus amaurochalinus, Turdus flavipes, Turdus subalaris, Turdus rufiventris	Brazil	[7], [11], [15], [16],
		Entomodestes leucotis, Troglodytes aedon, Turdus nigriceps, Turdus serranus	Peru	[7], [41]
		Myioborus miniatus, Turdus albicollis, Turdus flavipes, Turdus fuscater, Turdus grayi, Turdus olivater	Colombia	[49]
		Anairetes fernandezianus *Turdus falcklandii, Zonotrichia capensis* *Turdus rufiventris*	Chile Argentina Uruguay	[55] [40], [55] [3], [51]
pVIOLI03 (JX029897)	*R: Heliodoxa rubricauda* *M: Vireo olivaceus*	*Troglodytes aedon,* ***Vireo olivaceus*** ***Vireo olivaceus*** ***Vireo olivaceus***	Brazil United States Peru	[11] [25] [7]
pPHPAT01 (KY305005)	*M: Elaenia albiceps*	*Ammodramus humeralis, Basileuterus flaveolus Basileuterus leucoblepharus, Coryphospingus pileatus, Paroaria dominicana, Phaeomyias murina, Rynchops niger, Spheniscus magellanicus, Tangara cyanoptera*	Brazil	[7], [11], [14], [15], [17], [52]
		Bubo virginianus, Cardinalis cardinalis, Dolichonyx oryzivorus, Geothlypis trichas, Larosterna inca, Quiscalus quiscula	United States	[8], [22], [25], [38], [44]
		Phrygilus patagonicus *Sayornis nigricans*	Chile Peru	[40] [53]
hELAALB01 (MK695430)	*M: Elaenia albiceps*	*Anairetes parulus,* ***Elaenia albiceps***	Argentina	[7]
hMYISWA01 (KU562174)	*M: Elaenia albiceps* *M: Myiarchus swainsoni* *M: Tyrannus melancholicus*	*Elaenia chiriquensis,* ***Myiarchus swainsoni*** *Myiodynastes maculatus, Myiopagis viridicata, Phaeomyias murina, Phaethornis malaris, Serpophaga subcristata*	Brazil	[7], [16]
hTANDES01 (MT724553)	***R: Tangara desmaresti***			
hVIGIL09 (hCOLPLU01) (MH457345)	*M: Vireo olivaceus*	*Euphonia xanthogaster, Microcerculus marginatus Myiodynastes maculatus, Myiornis albiventris*	Peru	[7]

		Patagioenas plumbea, Turdus nigriceps, ***Vireo gilvus,*** *Willisornis poecilinotus*		
		Vireo gilvus	United States	[25]
		Vireo olivaceus	Brazil	[7]
hVIOLI05 (hVIREO02) (KF482350)	*M: Vireo olivaceus*	***Vireo olivaceus***	Peru Colombia Brazil	[53] [28] [7]
hCHIPAR01 (hVIROLI05) (MT724528)	*M: Vireo olivaceus*	***Chiroxiphia pareola***	Peru	[41]
hZOCAP01 (EF153649)	*R: Zonotrichia capensis*	***Zonotrichia capensis***	Chile Peru Colombia Brazil Argentina Ecuador Costa Rica	[39], [40], [39], [53], [56] [28], [39], [57], [7] [7] [39], [57], [39]
lDIUDIU11 (MK947686)	*M: Elaenia albiceps*	***Diuca diuca*** *Aphrastura spinicauda*	Argentina Chile	[7] [58]
lELAALB02 (MK947541)	*M: Elaenia albiceps*	***Elaenia albiceps*** *Aphrastura spinicauda*	Argentina Chile	[7] [58]
lELAALB05 (MK947689)	*M: Elaenia albiceps*	***Elaenia albiceps*** *Aphrastura spinicauda*	Argentina Chile	[7] [58]
lZOLPYR01 (MK947545)	*M: Elaenia albiceps*	***Xolmis pyrope*** *Aphrastura spinicauda*	Argentina Chile	[7] [58]
lTROAED02 (KF767431)	*M: Elaenia albiceps*	***Troglodytes aedon*** *Anabacerthia striaticollis, Arremon schlegeli, Atlapetes melanocephalus, Basileuterus basilicus, Basileuterus conspicillatus, Buarremon torquatus, Catamenia homochroa, Catharus fuscater, Cranioleuca hellmayri, Diglossa albilatera, Elaenia frantzii, Henicorhina anachoreta, Henicorhina leucophrys, Mecocerculus leucophrys, Mionectes olivaceus, Myiarchus tuberculifer, Myioborus flavivertex, Myioborus miniatus, Myrmotherula schisticolor, Pipra erythrocephala, Pyrrhomyias cinnamomeus, Turdus albicollis, Turdus flavipes, Turdus fuscater, Zonotrichia capensis*	Peru Colombia	[41] [49]

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