

Table S1. GenBank accession numbers of partial *18S* rRNA gene sequences of vertebrate hosts and parasite species, which were used in the primers design of avian *Lankesterella*.

GenBank accession number	Organism (vertebrate host or parasite species)
FJ688019	<i>Acipenser fulvescens</i>
AF494058	<i>Adelina bambarooniae</i>
DQ096835	<i>Adelina dimidiata</i>
DQ096836	<i>Adelina grylli</i>
AF173605	<i>Alligator mississippiensis</i>
AF173614	<i>Anas platyrhynchos</i>
MH304758	Apicomplexa
MH304760	Apicomplexa
LK077046	<i>Apteryx australis</i>
AF173619	<i>Apus affinus</i>
DQ227420	<i>Besnoitia besnoiti</i>
JF314861	<i>Besnoitia besnoiti</i>
AF173620	<i>Bubo virginianus</i>
MG590304	<i>Caloenas nicobarica</i>
KT184332	<i>Caryospora</i> cf.
KT184331	<i>Caryospora</i> cf.
AF173638	<i>Charadrius semipalmatus</i>
AF173622	<i>Chordeiles acutipennis</i>
HM117907	Coccidia
HM117908	Coccidia
AF173630	<i>Columba livia</i>
AF173625	<i>Coracias caudata</i>
AF173611	<i>Coturnix pectoralis</i>
AJ311672	<i>Crocodylus niloticus</i>
AY954885	<i>Cryptosporidium andersoni</i>
DQ060422	<i>Cryptosporidium andersoni</i>
DQ060421	<i>Cryptosporidium baileyi</i>
EU162754	<i>Cryptosporidium fragile</i>
EU162752	<i>Cryptosporidium fragile</i>
AF093497	<i>Cryptosporidium muris</i>
AB089284	<i>Cryptosporidium muris</i>
X64343	<i>Cryptosporidium muris</i>
AY642591	<i>Cryptosporidium muris</i>
X64341	<i>Cryptosporidium parvum</i>
X64340	<i>Cryptosporidium parvum</i>
AF093499	<i>Cryptosporidium serpentis</i>
AF093501	<i>Cryptosporidium serpentis</i>
AF093500	<i>Cryptosporidium serpentis</i>
AF513227	<i>Cryptosporidium</i> sp.
AF173628	<i>Cuculus pallidus</i>
KT184368	<i>Cystoisospora canis</i>
AY618555	<i>Cystoisospora</i> cf
AB519675	<i>Cystoisospora</i> sp.
AY279205	<i>Cystoisospora timoni</i>
MG590305	<i>Didunculus strigirostris</i>

DQ538351	<i>Eimeria acervulina</i>
EF210323	<i>Eimeria acervulina</i>
KC305176	<i>Eimeria adenoeides</i>
KC305170	<i>Eimeria adenoeides</i>
KC305180	<i>Eimeria adenoeides</i>
AB769547	<i>Eimeria alabamensis</i>
AY613853	<i>Eimeria arnyi</i>
AB769566	<i>Eimeria auburnensis</i>
AB769563	<i>Eimeria auburnensis</i>
AB769583	<i>Eimeria bovis</i>
AB769600	<i>Eimeria bukidnonensis</i>
AB769602	<i>Eimeria canadensis</i>
MF860827	<i>Eimeria</i> cf.
MF860826	<i>Eimeria</i> cf.
FJ236374	<i>Eimeria</i> cf.
KT184339	<i>Eimeria falciformis</i>
KT184341	<i>Eimeria gallopavonis</i>
KC305187	<i>Eimeria meleagriditis</i>
KT184350	<i>Eimeria papillata</i>
HM117016	<i>Eimeria</i> sp.
AB769636	<i>Eimeria subspherica</i>
AF026388	<i>Eimeria tenella</i>
DQ136183	<i>Eimeria tenella</i>
GU479674	<i>Eimeria variabilis</i>
AB769647	<i>Eimeria wyomingensis</i>
AB769657	<i>Eimeria zuernii</i>
AB769659	<i>Eimeria zuernii</i>
KT956976	<i>Eimeriidae</i>
NR46271	<i>Equus caballus</i>
AF009245	<i>Frenkelia glareoli</i>
AF173624	<i>Galbula pastazae</i>
KT445934	<i>Gallus gallus</i>
MG590306	<i>Goura cristata</i>
MG590323	<i>Goura victoria</i>
AY043206	<i>Goussia janae</i>
MH758784	<i>Goussia</i> sp.
MH758783	<i>Goussia</i> sp.
GU479656	<i>Goussia szekelyi</i>
AF173632	<i>Grus canadenses</i>
HQ224959	<i>Haemogregarina balli</i>
KF854253	<i>Hammondia hammondi</i>
KP881349	<i>Hemolivia stellata</i>
MG758136	<i>Hepatozoon banethi</i>
MG758137	<i>Hepatozoon banethi</i>
MG758133	<i>Hepatozoon banethi</i>
AY461375	<i>Hepatozoon canis</i>
AY461376	<i>Hepatozoon canis</i>
KX712128	<i>Hepatozoon canis</i>
LC169075	<i>Hepatozoon canis</i>

KU893123	<i>Hepatozoon canis</i>
KU893125	<i>Hepatozoon canis</i>
KU893121	<i>Hepatozoon canis</i>
EU289222	<i>Hepatozoon canis</i>
AY731062	<i>Hepatozoon canis</i>
HQ224954	<i>Hepatozoon</i> cf.
HQ224962	<i>Hepatozoon</i> cf.
HQ224963	<i>Hepatozoon</i> cf.
MG593275	<i>Hepatozoon ewingi</i>
KX017290	<i>Hepatozoon felis</i>
MG041594	<i>Hepatozoon involucrum</i>
MG041591	<i>Hepatozoon involucrum</i>
MG041593	<i>Hepatozoon involucrum</i>
MG041592	<i>Hepatozoon involucrum</i>
MG136687	<i>Hepatozoon martis</i>
JN181157	<i>Hepatozoon sipedon</i>
KF022102	<i>Hepatozoon peircei</i>
MF541372	<i>Hepatozoon</i> sp.
AB181504	<i>Hepatozoon</i> sp.
FJ719818	<i>Hepatozoon</i> sp.
FJ719817	<i>Hepatozoon</i> sp.
FJ719815	<i>Hepatozoon</i> sp.
FJ719816	<i>Hepatozoon</i> sp.
FJ719819	<i>Hepatozoon</i> sp.
AY600626	<i>Hepatozoon</i> sp.
AY600625	<i>Hepatozoon</i> sp.
JX644997	<i>Hepatozoon</i> sp.
JX644996	<i>Hepatozoon</i> sp.
KU680465	<i>Hepatozoon</i> sp.
KU680466	<i>Hepatozoon</i> sp.
KU680461	<i>Hepatozoon</i> sp.
KJ413113	<i>Hepatozoon</i> sp.
KJ413132	<i>Hepatozoon</i> sp.
JX644998	<i>Hepatozoon</i> sp.
FJ719813	<i>Hepatozoon</i> sp.
FJ719814	<i>Hepatozoon</i> sp.
MH174343	<i>Hepatozoon</i> sp.
EF222259	<i>Hepatozoon</i> sp.
EF222257	<i>Hepatozoon</i> sp.
KU198330	<i>Hepatozoon</i> sp.
LC169077	<i>Hepatozoon</i> sp.
HQ224960	<i>Hepatozoon</i> sp.
MG519502	<i>Hepatozoon</i> sp.
MG519501	<i>Hepatozoon</i> sp.
MG519504	<i>Hepatozoon</i> sp.
KU680463	<i>Hepatozoon</i> sp.
KU680462	<i>Hepatozoon</i> sp.
AY461377	<i>Hepatozoon</i> sp.
MG041596	<i>Hepatozoon tenuis</i>

MG041597	<i>Hepatozoon tenuis</i>
MG041595	<i>Hepatozoon tenuis</i>
MG041599	<i>Hepatozoon tenuis</i>
MG041602	<i>Hepatozoon thori</i>
MG041600	<i>Hepatozoon thori</i>
MG041601	<i>Hepatozoon thori</i>
MF164258	<i>Homo sapiens</i>
DQ060658	<i>Isospora belli</i>
AF106935	<i>Isospora belli</i>
L76471	<i>Isospora felis</i>
AF080612	<i>Isospora robini</i>
HQ224955	<i>Klossia helicina</i>
HQ224956	<i>Klossia helicina</i>
MG808274	<i>Lankesterella</i> sp.
MG808272	<i>Lankesterella</i> sp.
MG808273	<i>Lankesterella</i> sp.
DQ390207	<i>Lankesterella valsainensis</i>
AF173637	<i>Larus glaucoides</i>
AY217921	<i>Melanoseps occidentalis</i>
AJ419877	<i>Meleagris gallopavo</i>
AF173618	<i>Musophaga porphyreolopha</i>
AJ271354	<i>Neospora caninum</i>
U16159	<i>Neospora caninum</i>
EU334134	<i>Nephroisospora eptesici</i>
AF173606	<i>Nothoprocta ornata</i>
AF173613	<i>Ortalis guttata</i>
AY305326	<i>Perkinsus andrewsi</i>
AF102171	<i>Perkinsus andrewsi</i>
AF509333	<i>Perkinsus atlanticus</i>
KX514016	<i>Perkinsus olseni</i>
KX513987	<i>Perkinsus olseni</i>
AF252288	<i>Perkinsus</i> sp.
L07375	<i>Perkinsus</i> sp.
AF173615	<i>Picoides pubescens</i>
EU282018	<i>Sarcocystis alces</i>
MF596236	<i>Sarcocystis arctica</i>
MF596228	<i>Sarcocystis arctica</i>
MF596220	<i>Sarcocystis arctica</i>
KX022102	<i>Sarcocystis arctica</i>
MF039330	<i>Sarcocystis arieticanis</i>
MH413035	<i>Sarcocystis arieticanis</i>
KT901132	<i>Sarcocystis bovifelis</i>
KT901153	<i>Sarcocystis bovini</i>
KT901142	<i>Sarcocystis bovini</i>
KY019021	<i>Sarcocystis capreolicanis</i>
KY019027	<i>Sarcocystis capreolicanis</i>
JN256129	<i>Sarcocystis capreolicanis</i>
KY019024	<i>Sarcocystis capreolicanis</i>
KY019023	<i>Sarcocystis capreolicanis</i>

JN226118	<i>Sarcocystis capreolicanis</i>
KY973342	<i>Sarcocystis cervicanis</i>
KY973339	<i>Sarcocystis cervicanis</i>
KY973333	<i>Sarcocystis cervicanis</i>
HM125054	<i>Sarcocystis columbae</i>
LC171829	<i>Sarcocystis cruzi</i>
JX679467	<i>Sarcocystis cruzi</i>
GQ251013	<i>Sarcocystis elongata</i>
MF596181	<i>Sarcocystis entzerothi</i>
MF596180	<i>Sarcocystis entzerothi</i>
KX643337	<i>Sarcocystis entzerothi</i>
KY019030	<i>Sarcocystis gracilis</i>
JN256131	<i>Sarcocystis gracilis</i>
FJ196261	<i>Sarcocystis gracilis</i>
JN256128	<i>Sarcocystis hjorti</i>
AY015113	<i>Sarcocystis lacertae</i>
JQ733508	<i>Sarcocystis lari</i>
KU247921	<i>Sarcocystis levinei</i>
KU247914	<i>Sarcocystis levinei</i>
KY973357	<i>Sarcocystis linearis</i>
KY973361	<i>Sarcocystis linearis</i>
KY973365	<i>Sarcocystis linearis</i>
KY019041	<i>Sarcocystis linearis</i>
KY019035	<i>Sarcocystis linearis</i>
KY019045	<i>Sarcocystis linearis</i>
KY973358	<i>Sarcocystis linearis</i>
KY019053	<i>Sarcocystis linearis</i>
MF596216	<i>Sarcocystis lutrae</i>
KY973375	<i>Sarcocystis morae</i>
KY973379	<i>Sarcocystis morae</i>
M64244	<i>Sarcocystis muris</i>
EF467655	<i>Sarcocystis rangi</i>
GQ250978	<i>Sarcocystis rangiferi</i>
GQ250985	<i>Sarcocystis rangiferi</i>
HM185742	<i>Sarcocystis rileyi</i>
EU282021	<i>Sarcocystis scandinavica</i>
EU282025	<i>Sarcocystis scandinavica</i>
EU282026	<i>Sarcocystis scandinavica</i>
KY019060	<i>Sarcocystis silva</i>
KY019058	<i>Sarcocystis silva</i>
JN256132	<i>Sarcocystis silva</i>
KY019063	<i>Sarcocystis silva</i>
KT901096	<i>Sarcocystis sinensis</i>
KT901106	<i>Sarcocystis sinensis</i>
KT901105	<i>Sarcocystis sinensis</i>
KT901103	<i>Sarcocystis sinensis</i>
KT901108	<i>Sarcocystis sinensis</i>
GQ245670	<i>Sarcocystis</i> sp.
AB691780	<i>Sarcocystis</i> sp.

KF309698	<i>Sarcocystis</i> sp.
AB257162	<i>Sarcocystis</i> sp.
JN256133	<i>Sarcocystis</i> sp.
KF831281	<i>Sarcocystis taeniata</i>
KF831292	<i>Sarcocystis taeniata</i>
KF831282	<i>Sarcocystis taeniata</i>
EF056012	<i>Sarcocystis tarandivulpes</i>
EF467657	<i>Sarcocystis tarandivulpes</i>
KP263758	<i>Sarcocystis tenella</i>
KP263753	<i>Sarcocystis tenella</i>
GQ251022	<i>Sarcocystis truncata</i>
GQ251029	<i>Sarcocystis truncata</i>
KY973325	<i>Sarcocystis venatoria</i>
KY973324	<i>Sarcocystis venatoria</i>
KY973328	<i>Sarcocystis venatoria</i>
KU244524	<i>Sarcocystis zamani</i>
AJ419876	<i>Struthio camelus</i>
NR46261	<i>Sus scrofa</i>
AF173626	<i>Tockus nasutus</i>
EF472967	<i>Toxoplasma gondii</i>
KX008020	<i>Toxoplasma gondii</i>
KX008008	<i>Toxoplasma gondii</i>
AF173623	<i>Trogon collaris</i>
AF173631	<i>Turnix sylvatica</i>
AF173616	<i>Tyrannus tyrannus</i>
KP404891	Uncultured eukaryote
KP404707	Uncultured eukaryote
KP404652	Uncultured eukaryote
AF173627	<i>Upupa epops</i>
AF173617	<i>Urocolius macrourus</i>
X02995	<i>Xenopus laevis</i>
