

**Supplementary Table S1.** Species of the genus *Lipoptena* spp. described in the world with their distribution and hosts [1,4-6,19,43]

Species	Distribution	Hosts
species group "a"		
<i>Lipoptena axis</i> Maa, 1969	India, Sri Lanka, Nepal	<i>Axis axis</i> , <i>Tetracerus quadricornis</i>
<i>Lipoptena cervi</i> (Linnaeus, 1758)	Europe, Asia, Eastern states of USA	<i>Cervus elaphus</i> , <i>Cervus nippon</i> , <i>Cervus canadensis</i> , <i>Capreolus capreolus</i> , <i>Dama dama</i> , <i>Rupicapra rupicapra</i> , <i>Ovis musimon</i> , <i>Alces alces</i> , <i>Rangifer tarandus fennicus</i> , <i>Odocoileus virginianus</i>
<i>Lipoptena efovea</i> Speiser, 1905	Sri Lanka	<i>Axis axis ceylonensis</i> , <i>Muntiacus muntjak malabaricus</i>
<i>Lipoptena fortisetosa</i> Maa, 1965	South Korea, Japan, Europe, Kazakhstan	<i>Cervus nippon</i> , <i>Cervus elaphus</i> , <i>Capreolus capreolus</i> , <i>Capreolus pygargus</i> , <i>Dama dama</i> , <i>Emberiza spodocephata</i>
<i>Lipoptena japonica</i> Bequaert, 1942	Japan	<i>Capricornis crispus</i>
<i>Lipoptena nirvana</i> Maa, 1969	Vietnam	unknown
<i>Lipoptena pauciseta</i> Edwards, 1919	India, China, Thailand, Laos, Vietnam, Indonesia	<i>Muntiacus muntjak</i>
<i>Lipoptena rusaecola</i> Bequaert, 1942	Philippines	<i>Rusa unicolor</i>
<i>Lipoptena saepes</i> Maa, 1969	Nepal	<i>Axis porcinus</i>
<i>Lipoptena sigma</i> Maa, 1965	Taiwan	<i>Rusa unicolor swinhoii</i>
<i>Lipoptena timida</i> Maa, 1969	Nepal	<i>Axis porcinus</i>
species group "b"		
<i>Lipoptena pteropi</i> Denny, 1843	Thailand, Vietnam, Myanmar, Malaysia, Indonesia	<i>Tragulus napu</i> , <i>Tragulus javanicus</i>
species group "c"		
<i>Lipoptena arianae</i> Maa, 1969	Europe, Turkey, Iran, Afghanistan	Wild <i>Ovis</i> sp.
<i>Lipoptena capreoli</i> Rondani, 1878	Serbia, Greece, Cyprus, Turkey, Syria, Palestine, Iraq, Iran, Pakistan	<i>Capra hircus hircus</i>
<i>Lipoptena chacomelaena</i> Speiser, 1904	Egypt, Turkey, Sudan	<i>Capra nubiana</i> , <i>Capra hircus aegagrus</i>
<i>Lipoptena couturier</i> Seguy, 1935	Pyrenees Mountains (France, Spain)	<i>Rupicapra rupicapra</i>
<i>Lipoptena grahami</i> Bequaert, 1942	China	unknown
<i>Lipoptena saltatrix</i> Maa, 1969	India	<i>Hemitragus jemlahicus</i> , <i>Naemorhedus goral</i>
<i>Lipoptena weidneri</i> Maa, 1969	India	<i>Naemorhedus goral</i>
species group "d"		
<i>Lipoptena binocula</i> (Speiser, 1908)	South Africa, Mozambique, Botswana	<i>Raphicerus campestris</i> , <i>Antidorcas marsupialis</i>
<i>Lipoptena hopkinsi</i> Bequaert, 1942	Kenya, Uganda, Congo (DRC)	<i>Tragelaphus scriptus</i> , <i>Cephalophus monticola</i> , <i>Cephalophus nigrifrons</i> , <i>Nesotragus moschatus</i>
<i>Lipoptena iniqua</i> Maa, 1969	India	<i>Antilope cervicapra</i>
<i>Lipoptena paradoxa</i> Newstead, 1907	Ghana, Congo (DRC), Angola, Burundi, Uganda, Ethiopia, Kenya, Tanzania, Zimbabwe, Malawi, Mozambique, South Africa	<i>Tragelaphus angasii</i> <i>Tragelaphus scriptus</i> , <i>Tragelaphus imberbis</i> , <i>Tragelaphus strepsiceros</i> , <i>Taurotragus oryx</i> , <i>Sylvicapra grimmia</i> , <i>Kobus ellipsiprymnus</i> , <i>Redunca arundinum</i> , <i>Hippotragus equinus</i> , <i>Ourebia ourebi</i> , <i>Raphicerus melanotis</i> , <i>Aepyceros melampus</i>
<i>Lipoptena annalizeae</i> Visagie, 1992	South Africa	<i>Antidorcas marsupialis</i>
<i>Lipoptena sepiacea</i> Speiser, 1905	Gambia, Ghana, Nigeria, Sudan, Eritrea, Kenya, Uganda, Tanzania, Malawi	<i>Tragelaphus scriptus</i> , <i>Tragelaphus strepsiceros</i> , <i>Cephalophus monticola</i> , <i>Cephalophus rufilatus</i> , <i>Sylvicapra grimmia</i> , <i>Damaliscus korrigum</i> , <i>Ourebia ourebi</i> , <i>Gazella rufifrons</i> , <i>Gazella thomsonii</i> , <i>Gazella tilonura</i> , <i>Gazella granti</i>

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**Supplementary Table S1.** Continued

Species	Distribution	Hosts
species group "e"		
<i>Lipoptena depressa depressa</i> (Say, 1823)	Western regions of Canada and USA	<i>Odocoileus hemionus</i> , <i>Odocoileus virginianus</i>
<i>Lipoptena depressa pacifica</i> Maa, 1969	Western regions of Canada and USA	<i>Odocoileus hemionus</i> , <i>Odocoileus virginianus</i>
<i>Lipoptena guimaraesi</i> Bequaert, 1957	Brazil	<i>Ozotoceros bezoarticus</i>
<i>Lipoptena mazamae</i> Rondani, 1878	Southern-eastern states of USA, central and south America	<i>Mazama americana</i> , <i>Mazama guazupita</i> , <i>Mazama simplicicornis</i> , <i>Mazama tema</i> , <i>Odocoileus virginianus</i>
"Incertae sedis"		
<i>Lipoptena doszhanovi</i> Grunin & Doszhanov, 1974	Kazakhstan	<i>Passer hispaniolensis</i>
<i>Lipoptena pudui</i> Peterson & Maa, 1970	Chile	<i>Pudu pudu</i>
<i>Lipoptena sikae</i> Mogi, 1975	Japan	<i>Cervus nippon</i>