

Avian pox in seabirds on Marion Island, southern Indian Ocean

S Schoombie^{1*}, J Schoombie¹, A Oosthuizen², E Suleman², MGW Jones¹, L Pretorius³,

BJ Dilley¹ and PG Ryan¹

¹ *FitzPatrick Institute of African Ornithology, DST-NRF Centre of Excellence, University of Cape Town, Rondebosch 7701, South Africa*

² *Infectious and Parasitic Disease Program, Research and Scientific Services, National Zoological Gardens of South Africa, P O Box 754, Pretoria 0001, South Africa*

³ *Mammal Research Institute, Department of Zoology and Entomology, University of Pretoria, Pretoria 0002, South Africa*

* Corresponding author, e-mail: schoombie@gmail.com

Supplemental material

Table S1: List of avipoxvirus sequences analysed

GenBank Accession #/NZG cat no.	Host species	Country	Year
RNA Polymerase			
KP728110	Turkey	Hungary	2011
KX857216	Flesh-footed shearwater	Australia	2016
KJ801920	Feral pigeon	South Africa	2014
KJ859677	Penguin	South Africa	1992
AF198100	N/R	United states	1999
AJ581527	N/R	Munich	N/R
KX857215	Flesh-footed shearwater	Australia	2015
DQ356948	Nile crocodile	Zimbabwe	2001
NC001731	Human	N/R	2000
NC005336	Goat	United states	2003
NC005337	Cow	United states	2003
AY386263	Sheep	United states	1982
AY318871	Canary	United states	1948

GenBank Accession #/NZG cat no.	Host species	Country	Year
Viral core protein 4b			
KC017960	Domestic fowl	Hungary	2003
KC017961	Turkey	United states	2005
KC017962	Fowl	United state	1996
KC017963	Superb parrot	Chile	2004
KC017966	Rock dove	United states	1995
KC017967	Eastern imperial eagle	Hungary	2000
KC017972	Oriental turtle-dove	South Korea	N/R
KC017976	Booted eagle	Spain	2000
KC017981	Southern giant petrel	Antarctica	2004
KC017982	Pelagic cormorant	United states	1989
KC017983	Eurasian eagle owl	South Korea	N/R
KC017985	Common murre	United states	1991
KC017986	Laysan albatross	Midway Islands	1983
KC017987	Magellanic penguin	Argentina	2007
KC017988	Peregrine falcon	Hungary	2005
KC017989	Red-footed falcon	Hungary	2007
KC017991	Mottled duck	United states	2005
KC017992	Blue-winged teal	United states	1991
KC017994	Mallard duck	United states	1991
KC017997	Mourning dove	United states	1993
KC017998	Mourning dove	United states	1993
KC018002	Canada goose	United states	1992
KC018003	Bald eagle	United states	1993
KC018006	Red-tailed hawk	United states	1985
KC018009	Common buzzard	Hungary	2000
KC018010	Red kite	Spain	2000
KC018018	Apapane	United states	1996
KC018023	House finch	United states	1991
KC018031	American crow	United states	1999
KC018033	Medium ground finch	Ecuador	2008
KC018036	American crow	United states	2008
KC018037	Black billed magpie	United states	1997
KC018038	Black-hooded siskin	Netherlands	2003
KC018039	Common raven	United states	2004
KC018042	Medium ground finch	Ecuador	2008
KC018043	Woodpecker finch	Ecuador	2008
KC018045	Northern harrier	Spain	2000
KC018046	Common bullfinch	Belgium	2008
KC018047	Great tit	Hungary	2007
KC018050	Gray-crowned rosy finch	United states	1985
KC018051	Humboldt penguin	United states	2008
KC018052	Hawai'i amakihi	United states	1987
KC018053	Dark-eyed junco	United states	1986
KC018058	Golden eagle	Spain	2000
KC018061	Common grackle	United states	1993
KC018063	European starling	United states	1984

GenBank Accession #/NZG cat no.	Host species	Country	Year
KC018064	European starling	United states	1985
KC018066	Great bustard	Hungary	2005
KC018067	Common hill myna	Hungary	N/R
KC018068	American robin	United states	2005
KC018069	Yellow-crowned amazon	United states	1980
JN615018	Penguin	Argentina	2007
AM050376	Falcon	United Arab Emirates	2005
KF956003	Sea eagle	Germany	2002
AM050392	Black-browed Albatross	United Kingdom	2006
GU204249	Flamingo	South Africa	2010
KJ859677	Penguin	South Africa	1992
FJ948105	African penguin	South Africa	2009
KJ801920	Pigeon	South Africa	2014
AY530305	Ostrich	N/R	2004
AM050387	Turkey	United Kingdom	2005
AF198100	N/R	United States	1999
AJ581527	Cell culture	Unite Kingdom	2003
AY530304	Turkey	Germany	2004
AY530302	Vaccine	Germany	2004
AY453172	Chicken	Norway	2004
AY530306	Falcon	United Arab Emirates	2004
AM050386	Pigeon	United Kingdom	2005
AY453177	Wood pigeon	Norway	2004
AM050381	Houbara bustard	United Arab Emirates	2005
AY318871	Canary	United States	1948
AY453174	Great tit	Norway	2004
AM050384	Canary	United Kingdom	2005
AY453173	Great tit	Norway	2004
AM050383	Parrot	United Kingdom	2006
AY530311	Lovebird	Germany	2004
NZG samples			
Croc1	Crocodile	South Africa	2013
Avipox14B	Rosy flamingo	South Africa	2008
Avipox14C	Rosy flamingo	South Africa	2008
Avipox137	Feral pigeon	South Africa	2017

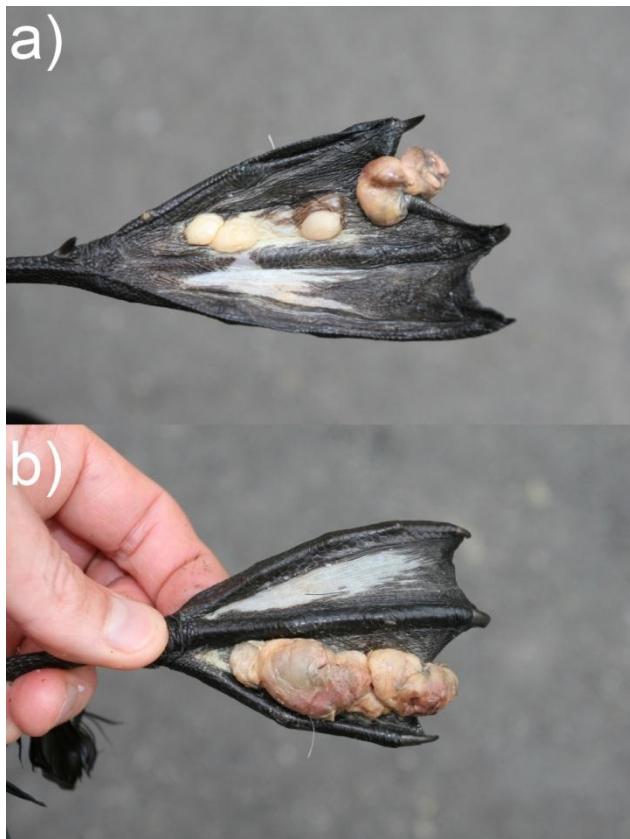


Figure S1: Avian pox-like lesions on two adult white-chinned petrels which drowned on long-lines set for tuna off South Africa in **a.** September 2005 and **b.** May 2008 (photos by PG Ryan).