

Supplementary Table 1: Summary of date, location and species of avian samples collected from South Georgia and the Falkland Islands with RRT-PCR testing result for H5N1 HPAIV, virus isolation and references for associated sequence data.

Location	Collection date	Common name	Scientific name	Swab type	gms	RRT-PCR HS-HP	N1	RRT-PCR Interpretation ^a	Virus isolation ^b	Virus strain name	INSDC accession number
Landing Beach, Bird Island, South Georgia	07/12/2023	Gentoo penguin	<i>Pygoscelis papua</i>	Faecal	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	Faecal	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	Faecal	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	Faecal	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	Faecal	-	-	-	Negative	N/P	N/A	N/A
Wanderer Ridge, Bird Island, South Georgia	16/12/2023	Wandering albatross	<i>Diomedea exulans</i>	Cloacal	27.49	26.66	28.31	HSN1 HPAIV	Negative	A/Wandering Albatross/Bird Island/004808/2023	GCA/977016195
		Wandering albatross	<i>Diomedea exulans</i>	Cloacal	26.87	25.04	26.94	HSN1 HPAIV	Negative	A/Wandering Albatross/Bird Island/004809/2023	GCA/977016095
		Wandering albatross	<i>Diomedea exulans</i>	Viscera	28.69	26.92	28.53	HSN1 HPAIV	N/P	N/A	N/A
Research Station, Bird Island, South Georgia	18/12/2023	NA	NA	Environment	33.13	30.93	32.83	HSN1 HPAIV	N/P	N/A	N/A
		NA	NA	Environment	-	-	-	Negative	N/P	N/A	N/A
Natural Arch, Bird Island, South Georgia	01/01/2024	Gentoo penguin	<i>Pygoscelis papua</i>	Cloacal	34.91	34.42	34.39	HSN1 HPAIV	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	30.25	30.4	32.19	HSN1 HPAIV	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	Cloacal	26.55	26.93	27.76	HSN1 HPAIV	N/P	A/gentoo penguin/Bird Island/007233/2024	GCA/977016265
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	31.83	30.53	33.96	HSN1 HPAIV	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	28.04	26.21	28.92	HSN1 HPAIV	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	Cloacal	20.55	20.3	21.79	HSN1 HPAIV	N/P	A/gentoo penguin/Bird Island/007234/2024	GCA/977016445
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	26.53	25.22	27.87	HSN1 HPAIV	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	Cloacal	29.09	28.26	29.31	HSN1 HPAIV	N/P	A/gentoo penguin/Bird Island/007235/2024	GCA/977016465
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	31.97	30.83	32.92	HSN1 HPAIV	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Top Meadows, Bird Island, South Georgia		Northern giant petrel	<i>Macronectes halli</i>	Cloacal	-	-	-	Negative	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	Cloacal	-	-	-	Negative	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	35.13	37.12	37.43	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	36.35	37.73	36.97	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	36.28	38.35	37.73	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	32.05	31.49	33.58	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	32.29	32.19	34.48	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	27.17	25.95	28.25	HSN1 HPAIV	Negative	A/Brown Skua/Prion Island/004877/2024	GCA/977016385
Prion Island, South Georgia	16/01/2024	Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	30.47	29.33	31.86	HSN1 HPAIV	Negative	A/Brown Skua/Prion Island/004878/2024	GCA/977016665
		Brown skua	<i>Stercorarius antarcticus</i>	OP	27.51	24.4	26.87	HSN1 HPAIV	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	OP	30.76	29.5	31.63	HSN1 HPAIV	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Salisbury Plain, South Georgia	17/01/2024	King penguin	<i>Aptenodytes patagonicus</i>	Cloacal	-	-	-	Negative	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	Environment	26.76	27.14	27.43	HSN1 HPAIV	Negative	A/Wandering Albatross/Bird Island/004770/2024	GCA/977016335
		Wandering albatross	<i>Diomedea exulans</i>	OP	37.38	36.24	38.17	HSN1 HPAIV	Negative	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	Brain	29.88	27.63	29.38	HSN1 HPAIV	Negative	A/Wandering Albatross/Bird Island/004771/2024	GCA/977016345
		Wandering albatross	<i>Diomedea exulans</i>	OP	35.2	32.93	34.82	HSN1 HPAIV	N/P	N/A	N/A
Amckenov Island, South Georgia	19/01/2024	Wandering albatross	<i>Diomedea exulans</i>	Brain	32.88	30.14	31.97	HSN1 HPAIV	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	Cloacal	31.58	29.39	31.38	HSN1 HPAIV	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	Environment	36.76	-	35.99	HSN1 HPAIV	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	OP	25.71	24.34	25.72	HSN1 HPAIV	Negative	A/Wandering Albatross/Bird Island/004890/2024	GCA/977016275
		Wandering albatross	<i>Diomedea exulans</i>	Cloacal	-	-	-	Negative	N/P	N/A	N/A
Holmestrand, South Georgia	20/01/2024	Giant petrel spp.	<i>Macronectes</i> spp.	Brain	-	-	-	Negative	N/P	N/A	N/A
		Giant petrel spp.	<i>Macronectes</i> spp.	Nasal	-	-	-	Negative	N/P	N/A	N/A
		Giant petrel spp.	<i>Macronectes</i> spp.	OP	-	-	-	Negative	N/P	N/A	N/A
		Giant petrel spp.	<i>Macronectes</i> spp.	Nasal	-	-	-	Negative	N/P	N/A	N/A
		Giant petrel spp.	<i>Macronectes</i> spp.	OP	-	-	-	Negative	N/P	N/A	N/A
Amckenov Island, South Georgia	21/01/2024	Northern giant petrel	<i>Macronectes halli</i>	Nasal	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	33	31.83	33.74	HSN1 HPAIV	Negative	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	26.75	25.62	27.38	HSN1 HPAIV	Negative	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	28.52	26.93	29.22	HSN1 HPAIV	N/P	A/Brown Skua/Wilson Harbour/004802/2024	GCA/977016305
		Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	-	-	-	Negative	N/P	N/A	N/A
Wilson Harbour, South Georgia	23/01/2024	Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Outer Lee Island, South Georgia	27/01/2024	Northern giant petrel	<i>Macronectes halli</i>	OP	25.09	26.35	25.92	HSN1 HPAIV	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	Brain	25.7	27.44	25.16	HSN1 HPAIV	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	OP	26.62	30.55	29.3	HSN1 HPAIV	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	Cloacal	26.09	24.05	26.57	HSN1 HPAIV	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Crescent Island, South Georgia	27/01/2024	Brown skua	<i>Stercorarius antarcticus</i>	OP	24.44	22.4	24.86	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Brain	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Albatross Island, South Georgia	28/01/2024	Wandering albatross	<i>Diomedea exulans</i>	OP	24.44	22.4	24.86	HSN1 HPAIV	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	Brain	-	-	-	Negative	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Wandering albatross	<i>Diomedea exulans</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Fortuna Bay, South Georgia	28/01/2024	King penguin	<i>Aptenodytes patagonicus</i>	Brain	-	-	-	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Cooper Bay, South Georgia	30/01/2024	Brown skua	<i>Stercorarius antarcticus</i>	Brain	33.84	31.93	33.35	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	30.52	28.47	31.12	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Brain	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
St Andrew's Bay, South Georgia	30/01/2024	King penguin	<i>Aptenodytes patagonicus</i>	Environment	36.76	-	35.99	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Trollfud Cove, South Georgia	01/02/2024	Gentoo penguin	<i>Pygoscelis papua</i>	Brain	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Gentoo penguin	<i>Pygoscelis papua</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Grinn Point, South Georgia	02/02/2024	Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	32.05	28.89	31.9	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	30.12	-	-	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Cloacal	26.7	25.19	26.48	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	Brain	31.97	30.16	31.04	HSN1 HPAIV	N/P	N/A	N/A
		Brown skua	<i>Stercorarius antarcticus</i>	OP	30.28	29.28	29.38	HSN1 HPAIV	N/P	N/A	N/A
Harpor Bay, South Georgia	06/02/2024	Northern giant petrel	<i>Macronectes halli</i>	Cloacal	31.93	30.22	32.78	HSN1 HPAIV	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	Cloacal	-	-	-	Negative	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	OP	-	-	-	Negative	N/P	N/A	N/A
		Northern giant petrel	<i>Macronectes halli</i>	OP	-	-	-	Negative	N/P	N/A	N/A
Will Point, South Georgia	06/02/2024	King penguin	<i>Aptenodytes patagonicus</i>	Cloacal	20.87	19.39	21.67	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Brain	35.7	32.53	34.67	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	27.54	26.31	27.99	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Cloacal	37.48	35.7	39.48	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Brain	31.79	19.08	21.22	HSN1 HPAIV	N/P	A/king_penguin/Will Point/006792/2024	GCA/977016145
Gold Harbour, South Georgia	07/02/2024	King penguin	<i>Aptenodytes patagonicus</i>	Cloacal	33.8	31.9	33.9	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	33.86	31.22	36.16	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Cloacal	34.08	32.86	34.22	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Brain	32.52	29.93	31.33	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	30.49	29.25	32.38	HSN1 HPAIV	N/P	N/A	N/A
Haavik, South Georgia	10/02/2024	King penguin	<i>Aptenodytes patagonicus</i>	Cloacal	31.87	19.89	21.66	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Brain	28.78	27.37	27.43	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	OP	31.56	29.39	31.89	HSN1 HPAIV	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Cloacal	39.13	-	39.36	Negative	N/P	N/A	N/A
		King penguin	<i>Aptenodytes patagonicus</i>	Brain	36.35	36.22	34.73	HSN1 HPAIV	N/P	N/A	N/A