SUPPLEMENTARY MATERIAL

Concentrations of organic pollutants in seabirds from the tropical southwestern Atlantic Ocean are explained by differences in foraging ecology

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Table S1 Limits of detection (LOD) and quantification (LOQ) for each organic pollutant compound, and their group category. LOD were the standard deviation of seven blank analytes multiplied by 3.0, then divided by the slope coefficient of the analytical curve. LOQ was the LOD multiplied by 3.3.

Compound	Group category	LOD (ng/mL)	LOQ (ng/mL)
PCB-28	PCB	0.00150	0.00500
PCB-52	PCB	0.00300	0.01000
PCB-101	PCB	0.00300	0.01000
PCB-138	PCB	0.00300	0.01000
PCB-153	PCB	0.00150	0.00500
PCB-180	PCB	0.00300	0.01000
o,p-DDE	OCP/DDT	0.07400	0.24450
p,p-DDE	OCP/DDT	0.07560	0.24975
o,p-DDD	OCP/DDT	0.07460	0.24625
p,p-DDD	OCP/DDT	0.07390	0.24400
p,p-DDT	OCP/DDT	0.07420	0.24500
o,p-DDT	OCP/DDT	0.07400	0.24450
Aldrin	OCP/drins	0.07570	0.24975
Dieldrin	OCP/drins	0.07500	0.24750
Endrin	OCP/drins	0.07560	0.24975
Endrin aldehyde	OCP/drins	0.07450	0.24600
Endrin ketone	OCP/drins	0.07500	0.24875

Compound	Group category	LOD (ng/mL)	LOQ (ng/mL)
α-Endosulfan	OCP/endosulfans	0.07560	0.24975
β-Endosulfan	OCP/endosulfans	0.07570	0.24975
Endosulfan Sulfate	OCP/endosulfans	0.07530	0.24850
α-HCH	OCP/HCH	0.07500	0.24975
δ-HCH	OCP/HCH	0.07500	0.24925
β-HCH	OCP/HCH	0.07290	0.24050
γ-HCH	OCP/HCH	0.07560	0.24975
Trifluralin	OCP/CUP	0.07500	0.24775
Heptachlor	OCP/other	0.07560	0.24975
Chlorothalonil	OCP/CUP	0.07420	0.24500
Dichlofluanid	OCP/CUP	0.07500	0.24750
β-Heptachlor Epoxide	OCP/other	0.07560	0.24975
Methoxychlor	OCP/other	0.07560	0.24975
Naphthalene	PAH/dicyclic	0.20000	0.66000
Acenaphthylene	PAH/tricyclic	0.11210	0.37000
2- Acenaphthylene	PAH/tricyclic	0.09390	0.31000
Fluorene	PAH/tricyclic	0.16360	0.54000
Phenanthrene	PAH/tricyclic	0.14550	0.48000
Anthracene	PAH/tricyclic	0.17270	0.57000
Fluoranthene	PAH/tetracyclic	0.04240	0.14000
Pyrene	PAH/tetracyclic	0.06060	0.20000
Benzo(a)anthracene	PAH/tetracyclic	0.18790	0.62000
Chrysene	PAH/tetracyclic	0.15150	0.50000
Benzo(b)fluorathene	PAH/tetracyclic	0.07270	0.24000
Benzo(k)fluoranthene	PAH/tetracyclic	0.07270	0.24000
Benzo(a)pyrene	PAH/pentacyclic	0.07270	0.24000
Indeno(1,2,3-cd)pyrene	PAH/pentacyclic	0.18790	0.62000
Dibenz(a,h)anthracene	PAH/pentacyclic	0.17880	0.59000
Benzo(ghi)perylene	PAH/hexacyclic	0.12120	0.40000

Table S2 Levels of organochlorine pesticides (OCPs) in the blood of brown boobies (*Sula leucogaster*), red-billed tropicbirds (*Phaethon aethereus*), Trindade petrels (*Pterodroma arminjoniana*) and yellow-nosed albatrosses (*Thalassarche chlororhynchos*) sampled in the southwestern Atlantic Ocean in 2019 and 2022. DT = percentage of samples with values above LOQ. Values below LOQ were substituted by LOQ/2 (see Table S1). When 100% of samples were below LOQ, '<LOQ' is shown for clarity. ns = not sampled. Units are in ng/mL for blood and ng/g for feathers.

Blood	**Year**	**Brown booby (BWB)**			**Red-billed tropicbird (RBT)**			**Trindade petrel (TPT)**			**Yellow-nosed albatross (YNA)**		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
Dichlofluanid	2019	50	1.3±1.33	0.12-3.31	40	0.33±0.31	0.12-3.31	70	1.71±2.91	0.12-8.75	100	1.24±0.11	1.16-1.32
Dichlofluanid	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Trifluralin	2019	90	1.53±0.86	0.12-2.85	70	0.98±0.86	0.12-2.85	30	0.3±0.33	0.12-1.1	100	5.26±1.16	4.45-6.08
Trifluralin	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Chlorothalonil	2019	0	<LOQ	<LOQ	10	0.42±0.95	0.12-0.12	10	0.17±0.15	0.12-0.6	50	0.53±0.57	0.12-0.93
Chlorothalonil	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
o,p-DDE	2019	20	0.56±1.06	0.12-3.41	20	0.17±0.11	0.12-3.41	10	0.13±0.04	0.12-0.25	0	<LOQ	<LOQ
o,p-DDE	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
o,p-DDT	2019	50	3.44±4.56	0.12-10.44	40	3.4±4.54	0.12-10.44	70	5±12.27	0.12-39.81	0	<LOQ	<LOQ
o,p-DDT	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
p,p-DDD	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	100	2.27±0.64	1.81-2.72
p,p-DDD	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
p,p-DDT	2019	0	<LOQ	<LOQ	20	0.17±0.12	0.12-0.12	0	<LOQ	<LOQ	0	<LOQ	<LOQ
p,p-DDT	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Aldrin	2019	30	0.59±0.78	0.12-2.13	20	0.34±0.46	0.12-2.13	30	0.24±0.28	0.12-1.01	0	<LOQ	<LOQ
Aldrin	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	8	0.14±0.06	0.12-0.35	ns	ns	ns
Dieldrin	2019	40	0.46±0.55	0.12-1.78	0	<LOQ	<LOQ	30	1.76±3.43	0.12-10.63	0	<LOQ	<LOQ
Dieldrin	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endrin	2019	20	0.5±0.97	0.12-3.18	30	0.22±0.18	0.12-3.18	30	0.43±0.51	0.12-1.41	0	<LOQ	<LOQ
Endrin	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endrin aldehyde	2019	50	0.59±0.64	0.12-1.76	60	0.79±1.26	0.12-1.76	20	0.3±0.38	0.12-1.2	100	2.13±1.06	1.38-2.88
Endrin aldehyde	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endrin ketone	2019	0	<LOQ	<LOQ	30	1.15±2.89	0.12-0.12	40	1.14±1.38	0.12-3.57	0	<LOQ	<LOQ
Endrin ketone	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endosulfan Sulfate	2019	20	0.25±0.35	0.12-1.25	10	0.18±0.16	0.12-1.25	0	<LOQ	<LOQ	0	<LOQ	<LOQ
Endosulfan Sulfate	2022	65	0.38±0.24	0.12-0.82	6	0.15±0.12	0.12-0.82	32	0.24±0.22	0.12-0.92	ns	ns	ns

Blood	Year	Brown booby (BWB)			Red-billed tropicbird (RBT)			Trindade petrel (TPT)			Yellow-nosed albatross (YNA)		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
α-Endosulfan	2019	10	0.33±0.66	0.12-2.22	10	0.14±0.05	0.12-2.22	20	1.74±3.69	0.12-11.25	0	<LOQ	<LOQ
α-Endosulfan	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
β-Endosulfan	2019	40	0.36±0.36	0.12-1.11	10	0.15±0.07	0.12-1.11	10	0.54±1.3	0.12-4.24	0	<LOQ	<LOQ
β-Endosulfan	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
α-HCH	2019	90	0.77±0.45	0.12-1.5	10	0.14±0.05	0.12-1.5	20	0.24±0.26	0.12-0.93	0	<LOQ	<LOQ
α-HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
β-HCH	2019	70	0.59±0.52	0.12-1.6	70	2.41±4.25	0.12-1.6	20	0.2±0.21	0.12-0.78	100	0.72±0.18	0.59-0.85
β-HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
γ-HCH	2019	10	0.19±0.22	0.12-0.81	0	<LOQ	<LOQ	20	0.29±0.36	0.12-1.09	0	<LOQ	<LOQ
γ-HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
δ-HCH	2019	20	0.21±0.18	0.12-0.62	40	0.57±1.2	0.12-0.62	10	0.19±0.2	0.12-0.76	100	1.96±1.77	0.71-3.21
δ-HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Heptachlor	2019	10	0.14±0.05	0.12-0.28	10	0.22±0.29	0.12-0.28	10	0.25±0.39	0.12-1.37	0	<LOQ	<LOQ
Heptachlor	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Methoxychlor	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	10	0.19±0.2	0.12-0.75	0	<LOQ	<LOQ
Methoxychlor	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
β-Heptachlor Epoxide	2019	90	2.33±1.09	0.12-3.39	80	0.57±0.44	0.12-3.39	60	0.87±1.48	0.12-4.93	100	0.88±0.07	0.82-0.93
β-Heptachlor Epoxide	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	4	0.14±0.08	0.12-0.51	ns	ns	ns
∑CUP	2019	100	2.95±1.8	0.56-6.11	80	1.74±1.16	0.56-6.11	70	2.19±3.25	0.37-9.5	100	7.03±1.61	5.89-8.18
∑CUP	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
∑DDT	2019	60	4.25±4.58	0.49-10.81	50	3.87±4.63	0.49-10.81	70	5.38±12.27	0.49-40.18	100	2.63±0.64	2.18-3.09
∑DDT	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
∑Drins	2019	70	2.27±1.66	0.62-5.62	80	2.63±3.33	0.62-5.62	50	3.87±5.27	0.62-15.57	100	2.63±1.06	1.88-3.38
∑Drins	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	8	0.64±0.06	0.62-0.84	ns	ns	ns
∑Endosulfans	2019	60	0.95±0.8	0.37-2.86	20	0.46±0.21	0.37-2.86	20	2.4±4.9	0.37-15.61	0	<LOQ	<LOQ
∑Endosulfans	2022	65	0.63±0.24	0.37-1.07	6	0.4±0.12	0.37-1.07	32	0.49±0.22	0.37-1.17	ns	ns	ns
∑HCH	2019	100	1.77±1.04	0.82-4.23	80	3.25±4.98	0.82-4.23	20	0.92±0.89	0.5-2.66	100	2.93±1.96	1.55-4.32
∑HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
∑Other OHPs	2019	90	2.59±1.11	0.38-3.72	80	0.91±0.49	0.38-3.72	60	1.31±1.6	0.38-5.18	100	1.13±0.07	1.07-1.18
∑Other OHPs	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	4	0.39±0.08	0.38-0.76	ns	ns	ns
∑OHP	2019	100	15.14±5.39	5.42-22.22	90	12.98±11.47	5.42-22.22	100	17.48±27.11	3.48-88.14	100	16.85±2.12	15.36-18.35
∑OHP	2022	65	3.1±0.24	2.85-3.54	6	2.88±0.12	2.85-3.54	40	3±0.24	2.85-3.83	ns	ns	ns

Table S3 Levels of organochlorine pesticides (OCPs) in the feathers of brown boobies (*Sula leucogaster*), red-billed tropicbirds (*Phaethon aethereus*), Trindade petrels (*Pterodroma arminjoniana*) and yellow-nosed albatrosses (*Thalassarche chlororhynchos*) sampled in the southwestern Atlantic Ocean in 2019 and 2022. DT = percentage of samples with values above LOQ. Values below LOQ were substituted by LOQ/2 (see Table S1). When 100% of samples were below LOQ, '<LOQ' is shown for clarity. ns = not sampled. Units are in ng/mL for blood and ng/g for feathers.

Feather	**Year**	**Brown booby (BWB)**			**Red-billed tropicbird (RBT)**			**Trindade petrel (TPT)**			**Yellow-noosed albatross (YNA)**		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
Chlorothalonil	2019	10	6.34±19.66	0.12-62.28	30	20.83±34.96	0.12-62.28	0	<LOQ	<LOQ	22	1.76±3.31	0.12-8.71
Chlorothalonil	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Dichlofluanid	2019	70	21.83±19.79	0.12-54.26	50	19.6±23.98	0.12-54.26	0	<LOQ	<LOQ	44	2.57±3.22	0.12-8.43
Dichlofluanid	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Trifluralin	2019	90	3.76±2.23	0.12-7.17	100	9.81±3.96	0.12-7.17	100	5.53±4.03	1.31-14.31	100	3.84±1.67	1.24-7.02
Trifluralin	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
o,p-DDE	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ
o,p-DDE	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
o,p-DDT	2019	20	18.65±50.74	0.12-161.46	10	5.45±16.85	0.12-161.46	0	<LOQ	<LOQ	11	1.54±4.26	0.12-12.89
o,p-DDT	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
p,p-DDD	2019	50	4.72±9.5	0.12-30.2	40	2.34±3.2	0.12-30.2	0	<LOQ	<LOQ	33	0.77±1.26	0.12-3.8
p,p-DDD	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
p,p-DDT	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ
p,p-DDT	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Aldrin	2019	30	1.01±1.62	0.12-4.55	30	1.58±2.71	0.12-4.55	10	0.14±0.05	0.12-0.27	33	0.79±1.18	0.12-3.52
Aldrin	2022	10	0.17±0.14	0.12-0.64	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Dieldrin	2019	10	0.77±2.04	0.12-6.58	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ
Dieldrin	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endrin	2019	20	1.01±2.65	0.12-8.53	0	<LOQ	<LOQ	0	<LOQ	<LOQ	11	0.28±0.45	0.12-1.48
Endrin	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endrin aldehyde	2019	80	4.67±6.21	0.12-18.75	20	2.07±4.3	0.12-18.75	90	4.49±3.5	0.12-10.17	44	1.36±1.54	0.12-3.43
Endrin aldehyde	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endrin ketone	2019	70	5.65±4.43	0.12-12.49	50	3.9±4.46	0.12-12.49	0	<LOQ	<LOQ	0	<LOQ	<LOQ
Endrin ketone	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Endosulfan Sulfate	2019	30	1.48±2.46	0.12-6.57	20	1.98±4.43	0.12-6.57	0	<LOQ	<LOQ	22	0.99±1.97	0.12-5.93
Endosulfan Sulfate	2022	90	0.52±0.28	0.12-0.99	42	0.35±0.3	0.12-0.99	93	0.56±0.26	0.12-0.99	ns	ns	ns
α-Endosulfan	2019	20	0.55±0.9	0.12-2.36	20	3.35±6.93	0.12-2.36	0	<LOQ	<LOQ	22	1.64±3.08	0.12-8.2
α-Endosulfan	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns

Feather	Year	Brown booby (BWB)			Red-billed tropicbird (RBT)			Trindade petrel (TPT)			Yellow-noosed albatross (YNA)		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
β-Endosulfan	2019	20	1.23±2.43	0.12-7.14	20	2.68±6.25	0.12-7.14	0	<LOQ	<LOQ	22	1.32±2.78	0.12-8.4
β-Endosulfan	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
α-HCH	2019	100	23.06±34.08	6.39-118.28	90	10.93±5.28	6.39-118.28	60	6.06±10.44	0.12-34.17	0	<LOQ	<LOQ
α-HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
β-HCH	2019	100	6.98±4.77	1.77-16.55	100	7.07±6.24	1.77-16.55	100	14.86±14.83	4.54-53.69	89	2.02±1.89	0.12-5.13
β-HCH	2022	30	0.51±0.7	0.12-2.62	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
γ-HCH	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ
γ-HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
δ-HCH	2019	70	4.8±6.96	0.12-22.72	60	2.94±3.41	0.12-22.72	30	2.48±5.56	0.12-17.68	44	0.67±0.93	0.12-2.42
δ-HCH	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Heptachlor	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ
Heptachlor	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Methoxychlor	2019	40	1.91±3.54	0.12-10.08	40	3.01±6.08	0.12-10.08	0	<LOQ	<LOQ	0	<LOQ	<LOQ
Methoxychlor	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
β-Heptachlor Epoxide	2019	80	23.71±18.01	0.12-50.07	90	24.83±20	0.12-50.07	90	24.51±18.76	0.12-60.93	89	4.58±2.49	0.12-9.07
β-Heptachlor Epoxide	2022	5	0.14±0.06	0.12-0.39	0	<LOQ	<LOQ	3	0.15±0.11	0.12-0.75	ns	ns	ns
∑CUP	2019	100	31.93±31.25	2.43-100.82	100	50.24±58.45	2.43-100.82	100	5.77±4.03	1.56-14.56	100	8.17±5.97	1.48-19.46
∑CUP	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
∑DDT	2019	50	23.61±60.07	0.49-191.9	50	8.04±16.37	0.49-191.9	0	<LOQ	<LOQ	44	2.56±4.2	0.49-13.26
∑DDT	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
∑Drins	2019	100	13.11±8.8	2.06-29.99	60	7.8±9.23	2.06-29.99	90	5±3.5	0.62-10.67	67	2.68±2.32	0.62-7.28
∑Drins	2022	10	0.67±0.14	0.62-1.13	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
∑Endosulfans	2019	50	3.26±4.24	0.37-13.84	40	8±12.02	0.37-13.84	0	<LOQ	<LOQ	44	3.96±5.26	0.37-14.46
∑Endosulfans	2022	90	0.77±0.28	0.37-1.24	42	0.6±0.3	0.37-1.24	93	0.81±0.26	0.37-1.24	ns	ns	ns
∑HCH	2019	100	34.96±37.56	12.62-136.88	100	21.06±12.85	12.62-136.88	100	23.52±22.43	4.92-71.62	89	2.95±1.97	0.5-5.51
∑HCH	2022	30	0.89±0.7	0.5-3	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
∑OHP	2019	100	132.73±73.31	23.32-304.84	100	124.92±85.49	23.32-304.84	100	60.05±39.76	19.59-127.6	100	26.06±14.1	5.43-45.47
∑OHP	2022	90	3.71±0.78	2.85-6.1	42	3.08±0.3	2.85-6.1	93	3.3±0.27	2.85-3.73	ns	ns	ns
∑Other OHPs	2019	80	25.74±17.28	0.38-50.32	90	27.96±25.12	0.38-50.32	90	24.76±18.76	0.38-61.18	89	4.83±2.49	0.38-9.32
∑Other OHPs	2022	5	0.39±0.06	0.38-0.64	0	<LOQ	<LOQ	3	0.4±0.11	0.38-1	ns	ns	ns

Table S4 Levels of polychlorinated biphenils (PCBs) in the blood of brown boobies (*Sula leucogaster*), red-billed tropicbirds (*Phaethon aethereus*), Trindade petrels (*Pterodroma arminjoniana*) and yellow-nosed albatrosses (*Thalassarche chlororhynchos*) sampled in the southwestern Atlantic Ocean in 2019 and 2022. DT = percentage of samples with values above LOQ. Values below LOQ were substituted by LOQ/2 (see Table S1). When 100% of samples were below LOQ, '<LOQ' is shown for clarity. ns = not sampled. Units are in ng/mL for blood and ng/g for feathers.

Blood	**Year**	**Brown booby (BWB)**			**Red-billed tropicbird (RBT)**			**Trindade petrel (TPT)**			**Yellow-nosed albatross (YNA)**		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
PCB-101	2019	50	1.76±2.76	0-7.21	60	0.73±0.91	0-7.21	80	2.42±6.24	0-20.06	0	<LOQ	<LOQ
PCB-101	2022	5	0.02±0.05	0-0.21	6	0.05±0.18	0-0.21	0	<LOQ	<LOQ	ns	ns	ns
PCB-138	2019	70	0.53±0.99	0-2.94	20	0.03±0.07	0-2.94	30	2.89±6	0-14.66	0	<LOQ	<LOQ
PCB-138	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
PCB-153	2019	60	0.56±0.74	0-2.42	50	0.43±0.75	0-2.42	60	0.17±0.28	0-0.86	0	<LOQ	<LOQ
PCB-153	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
PCB-180	2019	20	0.34±0.93	0-2.95	10	0.2±0.61	0-2.95	40	0.15±0.24	0-0.7	100	0.24±0.04	0.22-0.27
PCB-180	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	8	0.02±0.08	0-0.38	ns	ns	ns
PCB-28	2019	90	1.1±0.8	0-2.67	90	0.32±0.21	0-2.67	80	0.24±0.42	0-1.39	0	<LOQ	<LOQ
PCB-28	2022	45	0.28±0.37	0-0.94	24	0.02±0.06	0-0.94	76	0.19±0.25	0-0.77	ns	ns	ns
PCB-52	2019	70	0.37±0.37	0-1.02	60	0.17±0.22	0-1.02	70	0.28±0.54	0-1.74	0	<LOQ	<LOQ
PCB-52	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	72	0.23±0.22	0-0.53	ns	ns	ns
∑PCB	2019	100	4.66±4.47	1.1-14.42	90	1.88±1.64	1.1-14.42	100	6.16±12.37	0.12-37.41	100	0.26±0.04	0.24-0.29
∑PCB	2022	45	0.31±0.37	0.03-0.96	29	0.09±0.18	0.03-0.96	84	0.45±0.28	0.03-0.9	ns	ns	ns

Table S5 Levels of polychlorinated biphenils (PCBs) in the feathers of brown boobies (*Sula leucogaster*), red-billed tropicbirds (*Phaethon aethereus*), Trindade petrels (*Pterodroma arminjoniana*) and yellow-nosed albatrosses (*Thalassarche chlororhynchos*) sampled in the southwestern Atlantic Ocean in 2019 and 2022. DT = percentage of samples with values above LOQ. Values below LOQ were substituted by LOQ/2 (see Table S1). When 100% of samples were below LOQ, '<LOQ' is shown for clarity. ns = not sampled. Units are in ng/mL for blood and ng/g for feathers.

Feather	**Year**	**Brown booby (BWB)**			**Red-billed tropicbird (RBT)**			**Trindade petrel (TPT)**			**Yellow-nosed albatross (YNA)**		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
PCB-101	2019	30	13.81±29.47	0-92.6	50	14.83±27	0-92.6	80	8.15±6.34	0-18.75	0	<LOQ	<LOQ
PCB-101	2022	40	0.08±0.14	0-0.45	5	0.01±0.03	0-0.45	27	0.08±0.18	0-0.73	ns	ns	ns
PCB-138	2019	30	0.99±2.11	0-6.3	40	1.6±3.73	0-6.3	60	1.97±2.85	0-7.93	78	0.95±0.76	0-2.33
PCB-138	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
PCB-153	2019	0	<LOQ	<LOQ	10	2.84±8.98	0-0	10	0.01±0.03	0-0.1	67	1.4±1.54	0-3.68
PCB-153	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
PCB-180	2019	10	1.01±3.19	0-10.1	20	4.69±13.91	0-10.1	10	0.23±0.73	0-2.3	56	1.55±1.57	0-3.56
PCB-180	2022	30	0.12±0.23	0-0.72	16	0.03±0.06	0-0.72	30	0.06±0.12	0-0.49	ns	ns	ns
PCB-28	2019	30	4.47±7.35	0-17.6	50	5.54±6.96	0-17.6	10	3.44±10.88	0-34.4	0	<LOQ	<LOQ
PCB-28	2022	65	0.17±0.22	0-0.75	58	0.26±0.31	0-0.75	27	0.08±0.18	0-0.8	ns	ns	ns
PCB-52	2019	50	1.66±1.98	0-5.2	60	1.37±1.87	0-5.2	60	12.16±25.16	0-75.9	33	0.15±0.26	0-0.69
PCB-52	2022	20	0.1±0.22	0-0.63	21	0.09±0.2	0-0.63	0	0±0	0-0	ns	ns	ns
∑PCB	2019	70	21.96±31.92	0.03-102.72	100	30.89±40.42	0.03-102.72	100	25.97±32.41	0.12-110.32	100	4.05±1.99	0.6-6.57
∑PCB	2022	85	0.48±0.35	0.03-0.98	58	0.4±0.36	0.03-0.98	37	0.23±0.32	0.03-0.97	ns	ns	ns

Table S6 Levels of polycyclic aromatic hydrocarbons (PAHs) in the blood of brown boobies (*Sula leucogaster*), red-billed tropicbirds (*Phaethon aethereus*), Trindade petrels (*Pterodroma arminjoniana*) and yellow-nosed albatrosses (*Thalassarche chlororhynchos*) sampled in the southwestern Atlantic Ocean in 2019 and 2022. DT = percentage of samples with values above LOQ. Values below LOQ were substituted by LOQ/2 (see Table S1). When 100% of samples were below LOQ, '<LOQ' is shown for clarity. ns = not sampled. Units are in ng/mL for blood and ng/g for feathers.

Blood	**Year**	**Brown booby (BWB)**			**Red-billed tropicbird (RBT)**			**Trindade petrel (TPT)**			**Yellow-nosed albatross (YNA)**		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
2- Acenaphthylene	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ
2- Acenaphthylene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Acenaphthylene	2019	60	0.42±0.23	0.18-0.84	20	0.24±0.12	0.18-0.84	20	0.27±0.18	0.18-0.61	100	1.19±0.16	1.08-1.31
Acenaphthylene	2022	85	0.71±0.32	0.18-1.16	94	0.69±0.31	0.18-1.16	92	0.73±0.3	0.18-1.4	ns	ns	ns
Anthracene	2019	50	0.56±0.32	0.28-1.06	0	<LOQ	<LOQ	10	0.32±0.12	0.28-0.65	100	3.66±3.55	1.15-6.17
Anthracene	2022	100	1.11±0.41	0.66-1.78	100	0.92±0.27	0.66-1.78	84	0.9±0.4	0.28-1.75	ns	ns	ns
Benzo(a)anthracene	2019	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	100	0.67±0.01	0.66-0.67
Benzo(a)anthracene	2022	10	0.36±0.15	0.31-0.86	6	0.34±0.11	0.31-0.86	8	0.34±0.11	0.31-0.73	ns	ns	ns
Benzo(a)pyrene	2019	0	<LOQ	<LOQ	10	0.23±0.36	0.12-0.12	10	0.33±0.66	0.12-2.21	0	<LOQ	<LOQ
Benzo(a)pyrene	2022	95	0.63±0.27	0.12-1.16	94	0.47±0.23	0.12-1.16	96	0.55±0.23	0.12-1.11	ns	ns	ns
Benzo(b)fluorathene	2019	40	0.29±0.26	0.12-0.74	30	0.32±0.43	0.12-0.74	10	0.35±0.73	0.12-2.43	0	<LOQ	<LOQ
Benzo(b)fluorathene	2022	10	0.16±0.15	0.12-0.8	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Benzo(ghi)perylene	2019	60	0.6±0.43	0.2-1.51	20	0.32±0.26	0.2-1.51	30	0.57±0.77	0.2-2.64	100	2.27±0.13	2.17-2.36
Benzo(ghi)perylene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Benzo(k)fluoranthene	2019	80	1.14±0.61	0.12-2.17	80	0.61±0.46	0.12-2.17	40	0.49±0.91	0.12-3.07	0	<LOQ	<LOQ
Benzo(k)fluoranthene	2022	85	0.73±0.41	0.12-1.61	94	0.54±0.21	0.12-1.61	88	0.52±0.23	0.12-0.97	ns	ns	ns
Chrysene	2019	0	<LOQ	<LOQ	10	0.31±0.18	0.25-0.25	10	0.34±0.28	0.25-1.15	100	0.93±0.02	0.91-0.94
Chrysene	2022	55	0.52±0.31	0.25-1.46	59	0.5±0.24	0.25-1.46	32	0.39±0.23	0.25-1.05	ns	ns	ns
Dibenz(a,h)anthracene	2019	50	0.72±0.49	0.3-1.46	0	<LOQ	<LOQ	20	0.47±0.37	0.3-1.33	0	<LOQ	<LOQ
Dibenz(a,h)anthracene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Fluoranthene	2019	50	0.28±0.33	0.07-1.08	50	0.22±0.22	0.07-1.08	30	0.14±0.17	0.07-0.6	100	3.63±0.55	3.24-4.02
Fluoranthene	2022	80	0.99±0.51	0.07-1.85	88	1.1±0.42	0.07-1.85	96	1.2±0.33	0.07-1.68	ns	ns	ns
Fluorene	2019	10	0.31±0.13	0.27-0.67	10	0.35±0.24	0.27-0.67	10	0.3±0.09	0.27-0.56	50	1.29±1.44	0.27-2.3
Fluorene	2022	95	1.12±0.35	0.27-1.71	88	1.07±0.36	0.27-1.71	92	1.05±0.35	0.27-1.64	ns	ns	ns
Indeno(1,2,3-cd)pyrene	2019	80	1.19±0.57	0.31-2.12	30	0.5±0.33	0.31-2.12	30	0.86±1.06	0.31-3.53	0	<LOQ	<LOQ
Indeno(1,2,3-cd)pyrene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns

Blood	Year	Brown booby (BWB)			Red-billed tropicbird (RBT)			Trindade petrel (TPT)			Yellow-nosed albatross (YNA)		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
Naphthalene	2019	60	0.59±0.24	0.33-0.87	0	<LOQ	<LOQ	20	0.43±0.22	0.33-0.94	100	3.86±1.82	2.57-5.14
Naphthalene	2022	80	0.82±0.3	0.33-1.25	71	0.67±0.25	0.33-1.25	64	0.69±0.33	0.33-1.47	ns	ns	ns
Phenanthrene	2019	90	1.01±0.42	0.24-1.51	60	0.54±0.35	0.24-1.51	40	0.57±0.53	0.24-1.71	100	6.55±1.75	5.31-7.79
Phenanthrene	2022	5	0.28±0.17	0.24-1	6	0.29±0.19	0.24-1	4	0.25±0.06	0.24-0.56	ns	ns	ns
Pyrene	2019	80	0.63±1.1	0.1-3.71	80	0.52±0.48	0.1-3.71	30	0.19±0.17	0.1-0.58	100	3.76±4.97	0.25-7.27
Pyrene	2022	30	0.18±0.15	0.1-0.55	47	0.26±0.2	0.1-0.55	28	0.24±0.28	0.1-0.99	ns	ns	ns
∑PAH	2019	100	8.58±2.14	4.42-10.62	100	5.52±2.32	4.42-10.62	60	6.09±5.6	3.36-21.4	100	28.91±7.3	23.75-34.08
∑PAH	2022	100	8.57±1.07	6.72-11.3	100	7.92±0.97	6.72-11.3	100	7.94±1.02	5.26-9.42	ns	ns	ns

Table S7 Levels of polycyclic aromatic hydrocarbons (PAHs) in the feathers of brown boobies (*Sula leucogaster*), red-billed tropicbirds (*Phaethon aethereus*), Trindade petrels (*Pterodroma arminjoniana*) and yellow-nosed albatrosses (*Thalassarche chlororhynchos*) sampled in the southwestern Atlantic Ocean in 2019 and 2022. DT = percentage of samples with values above LOQ. Values below LOQ were substituted by LOQ/2 (see Table S1). When 100% of samples were below LOQ, '<LOQ' is shown for clarity. ns = not sampled. Units are in ng/mL for blood and ng/g for feathers.

Feather	**Year**	**Brown booby (BWB)**			**Red-billed tropicbird (RBT)**			**Trindade petrel (TPT)**			**Yellow-nosed albatross (YNA)**		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
2- Acenaphthylene	2019	0	<LOQ	<LOQ	10	0.3±0.46	0.16-0.16	0	<LOQ	<LOQ	0	<LOQ	<LOQ
2- Acenaphthylene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Acenaphthylene	2019	40	3.78±4.9	0.18-12.4	100	5.51±2.04	0.18-12.4	100	9.33±5.08	2.67-20.9	89	1.01±0.53	0.18-1.86
Acenaphthylene	2022	85	0.69±0.33	0.18-1.26	89	0.72±0.4	0.18-1.26	97	0.72±0.32	0.18-1.82	ns	ns	ns
Anthracene	2019	100	16.74±16.18	6.3-51.3	100	9.61±7.77	6.3-51.3	100	8.5±4.17	2-16.3	100	2.33±2.45	0.62-8.68
Anthracene	2022	95	1.13±0.36	0.28-1.65	95	0.97±0.32	0.28-1.65	93	1.07±0.37	0.28-1.88	ns	ns	ns
Benzo(a)anthracene	2019	100	14.35±5.62	3.3-23.3	100	34.38±46.42	3.3-23.3	50	8.83±13.66	0.31-41	100	0.79±0.1	0.68-1.03
Benzo(a)anthracene	2022	20	0.44±0.26	0.31-1.01	5	0.33±0.09	0.31-1.01	7	0.34±0.13	0.31-0.92	ns	ns	ns
Benzo(a)pyrene	2019	60	6.5±6.49	0.12-15.9	90	11.24±6.71	0.12-15.9	40	13.55±25.74	0.12-80.1	0	<LOQ	<LOQ
Benzo(a)pyrene	2022	100	0.53±0.34	0.25-1.74	84	0.57±0.51	0.25-1.74	87	0.6±0.26	0.12-1.11	ns	ns	ns
Benzo(b)fluorathene	2019	80	17.06±11.58	0.12-29.1	80	14.66±12.67	0.12-29.1	90	22.54±29.57	0.12-96.3	0	<LOQ	<LOQ
Benzo(b)fluorathene	2022	10	0.17±0.14	0.12-0.6	0	<LOQ	<LOQ	13	0.17±0.16	0.12-0.8	ns	ns	ns
Benzo(ghi)perylene	2019	90	18.91±10.2	0.2-38	100	30.02±41.26	0.2-38	40	12.14±19.22	0.2-54.8	100	3.41±1.88	0.77-7.41
Benzo(ghi)perylene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Benzo(k)fluoranthene	2019	80	27.51±19.52	0.12-69.5	80	27.74±22.67	0.12-69.5	100	24.65±25.41	8.01-94.7	0	<LOQ	<LOQ
Benzo(k)fluoranthene	2022	100	0.61±0.23	0.34-1.14	95	0.58±0.24	0.34-1.14	100	0.59±0.18	0.27-1	ns	ns	ns
Chrysene	2019	100	19.6±6.71	11.2-33.4	100	28.31±41.31	11.2-33.4	100	15.33±15.19	3.33-52.4	100	2.43±1.2	1.09-4.6
Chrysene	2022	65	0.54±0.25	0.25-0.92	42	0.45±0.28	0.25-0.92	43	0.42±0.21	0.25-0.99	ns	ns	ns
Dibenz(a,h)anthracene	2019	30	5.15±8.37	0.3-23	40	4.03±5.17	0.3-23	100	20.53±11.64	8.95-50.2	0	<LOQ	<LOQ
Dibenz(a,h)anthracene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns
Fluoranthene	2019	100	41.87±11.8	18.7-58	100	36.99±19.2	18.7-58	100	29±27.18	3.49-74.4	100	6.82±4.18	1.72-15.37
Fluoranthene	2022	95	1.12±0.29	0.07-1.71	100	1.21±0.19	0.07-1.71	93	1.21±0.43	0.07-2.11	ns	ns	ns
Fluorene	2019	90	10.77±8.47	0.27-28.2	80	11.97±9.56	0.27-28.2	100	13.23±8.17	5.5-30.6	89	2.6±1.92	0.27-5.36
Fluorene	2022	95	1±0.28	0.27-1.49	100	1.14±0.42	0.27-1.49	100	1.09±0.24	0.55-1.49	ns	ns	ns
Indeno(1,2,3-cd)pyrene	2019	90	24.58±15.26	0.31-46.6	100	33.76±46.67	0.31-46.6	80	18.82±16.99	0.31-59.5	0	<LOQ	<LOQ
Indeno(1,2,3-cd)pyrene	2022	0	<LOQ	<LOQ	0	<LOQ	<LOQ	0	<LOQ	<LOQ	ns	ns	ns

Feather	Year	Brown booby (BWB)			Red-billed tropicbird (RBT)			Trindade petrel (TPT)			Yellow-nosed albatross (YNA)		
Compound		**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**	**DT**	**Mean±SD**	**Min-Max**
Naphthalene	2019	90	9.62±5.46	0.33-20.3	100	12.32±6.36	0.33-20.3	90	9.44±5.95	0.33-21.11	100	2.04±1.06	0.79-3.65
Naphthalene	2022	80	0.73±0.24	0.33-1.16	79	0.78±0.32	0.33-1.16	83	0.78±0.26	0.33-1.36	ns	ns	ns
Phenanthrene	2019	100	57.15±18.85	32.8-89.7	100	53.06±24.12	32.8-89.7	100	38.23±31.68	7.45-92.3	67	6.35±5.43	0.24-13.9
Phenanthrene	2022	20	0.38±0.32	0.24-1.46	0	<LOQ	<LOQ	10	0.27±0.09	0.24-0.55	ns	ns	ns
Pyrene	2019	100	73.05±22.49	31.2-104.9	100	61.35±37.08	31.2-104.9	100	40.17±43.31	1.81-121.7	89	4.82±4.26	0.1-13.43
Pyrene	2022	45	0.25±0.21	0.1-0.72	32	0.25±0.27	0.1-0.72	60	0.32±0.25	0.1-0.91	ns	ns	ns
∑PAH	2019	100	346.8±103.21	136.2-493.88	100	375.26±235.96	136.2-493.88	100	284.44±256.71	82.59-860.46	100	33.74±8.26	22.5-44.44
∑PAH	2022	100	8.55±0.99	6.9-11.13	100	8.32±0.81	6.9-11.13	100	8.54±0.99	6.41-11.4	ns	ns	ns

Table S8 Concentrations of organic pollutants in seabirds from various regions of the world. Values reported are the mean, with standard deviations when available, otherwise the range (minimum – maximum). Values are reported in parts per billion.

Species	Tissue	Region	Date	OCP	DDT	HCH	Endosulfan	Drins	PCB	PAH	Study
Pterodroma cahow	blood	Bermuda	2019/2022	-	2.92 ± 1.99		-	-	7.87 ± 5.35	3.95 ± 2.88	Campioni et al. 2024
Fregata magnificens	blood	Barbuda	2009-2014	1.52	2.33	3.03	0	-	7.81	-	Gilmour et al. 2019
Fregata minor	blood	Laysan	2009-2014	0.53	1.15	0.32	0.16	-	2.56	-	Gilmour et al. 2019
Sula dactylatra	blood	Laysan	2009-2014	0.25	1.55	0.53	0.13	-	4.27	-	Gilmour et al. 2019
Sula sula	blood	Laysan	2009-2014	0.27	1.6	0.11	0.14	-	1.62	-	Gilmour et al. 2019
Sula leucogaster	blood	Palmyra atoll	2009-2014	0.4	2.26	0	0.38	-	4.64	-	Gilmour et al. 2019
Fregata minor	blood	Palmyra atoll	2009-2014	0.37	3.73	1.22	0	-	>4.86	-	Gilmour et al. 2019
Pterodroma arminjoniana	blood	Trindade – Brazil	2017	-	7.27	<LOQ	-	-	24.29	-	Silva et al. 2023
Anous stolidus	blood	Trindade – Brazil	2017	-	0.05	0.01	-	-	0.29	-	Silva et al. 2023
Sula dactylatra	blood	Trindade – Brazil	2017	-	0.23	0	-	-	1.14	-	Silva et al. 2023
Onychoprion fuscatus	blood	Trindade – Brazil	2017	-	0.04	<LOQ	-	-	0.12	-	Silva et al. 2023
Anous minutus	blood	SPSP – Brazil	2017	-	0.06	0.06	-	-	0.56	-	Silva et al. 2023
Anous stolidus	blood	SPSP – Brazil	2017	-	0.45	0	-	-	0.29	-	Silva et al. 2023
Sula leucogaster	blood	SPSP – Brazil	2017	-	0.07	0	-	-	0.51	-	Silva et al. 2023
Thalassarche melanophris	feather	Argentina	Winter 2011	16.3	4	4.92 ± 6.01	-	3.62 ± 10.51	7.23	-	Adrogué et al. 2019
Daption capense	feather	Argentina	Winter 2011	48.06	2.6	11.73 ± 15.47	-	24.34 ± 31.19	9.6	-	Adrogué et al. 2019
Onychoprion fuscatus	liver	Rocas atoll – Brazil	2010-2011	-	2.58 ± 1.93	1.96 ± 1.63	<0.27	<0.22	23.6 ± 21.7	-	Dias et al. 2018
Anous stolidus	liver	Rocas atoll – Brazil	2010-2011	-	5.93 ± 3.85	1.78 ± 0.73	<0.27	<0.22	65.2 ± 28.2	-	Dias et al. 2018

Species	Tissue	Region	Date	OCP	DDT	HCH	Endosulfan	Drins	PCB	PAH	Study
Anous minutus	liver	Rocas atoll – Brazil	2010-2011	-	6.79 ± 4.00	4.44 ± 2.24	<0.27	<0.22	72.0 ± 8.91	-	Dias et al. 2018
Sula dactylatra	liver	Rocas atoll – Brazil	2010-2011	-	7.40 ± 6.59	2.16 ± 0.77	<0.27	<0.22	60.9 ± 57.3	-	Dias et al. 2018
Sula leucogaster	liver	Rocas atoll – Brazil	2010-2011	-	11.8	2.76	<0.27	<0.22	85.2	-	Dias et al. 2018
Spheniscus magellanicus	liver	Campos Basin – Brazil	2012	-	50.3 ± 82.6	17.9 ± 21.2	96.29	81.2	133 ± 221	1711 ± 2859	Quinete et al. 2020
Spheniscus magellanicus	muscle	Campus Basin – Brazil	2012	-	27.0 ± 41.4	7.75 ± 6.30	63.04	41.15	57.7 ± 95.6	141 ± 273	Quinete et al. 2020
Larus michahellis	blood	Pantorgas – Spain	2004	-	-	-	-	-	-	75.15	Pérez et al. 2008
Larus michahellis	blood	Ansarón – Spain	2004	-	-	-	-	-	-	101.17	Pérez et al. 2008
Larus michahellis	blood	Coelleira – Spain	2004	-	-	-	-	-	-	71.71	Pérez et al. 2008
Pelecanus occidentalis	blood	Gulf of mexico	-	-	-	-	-	-	-	42.44 to 245.47	Jodice et al. 2023
Calonectris borealis	liver	Northern Atlantic Ocean	2003-2007	-	-	-	-	-	-	8.52	Roscales et al. 2011
Bulweria bulwerii	liver	Northern Atlantic Ocean	2003-2007	-	-	-	-	-	-	32.5	Roscales et al. 2011
Pelagodroma marina	liver	Northern Atlantic Ocean	2003-2007	-	-	-	-	-	-	29.8	Roscales et al. 2011
Cepphus grylle	liver	Canada	2018	-	-	-	-	-	-	3.56 ± 12.85	Provencher et al. 2020
Rissa tridactyla	liver	Canada	2018	-	-	-	-	-	-	0.61 ± 0.71	Provencher et al. 2020
Uria lomvia	liver	Canada	2018	-	-	-	-	-	-	1.53 ± 3.10	Provencher et al. 2020
Fulmarus glacialis	liver	Canada	2018	-	-	-	-	-	-	0.52 ± 0.91	Provencher et al. 2020
Uria lomvia	liver	Canada	2007-2008	-	-	-	-	-	-	21.07 ± 14.28	Provencher et al. 2022
Fulmarus glacialis	liver	Canada	2007-2008	-	-	-	-	-	-	36.91 ± 24.98	Provencher et al. 2022

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