

First report of metals and metalloids on bone and claw tissues of Humboldt penguins (*Spheniscus humboldti*)

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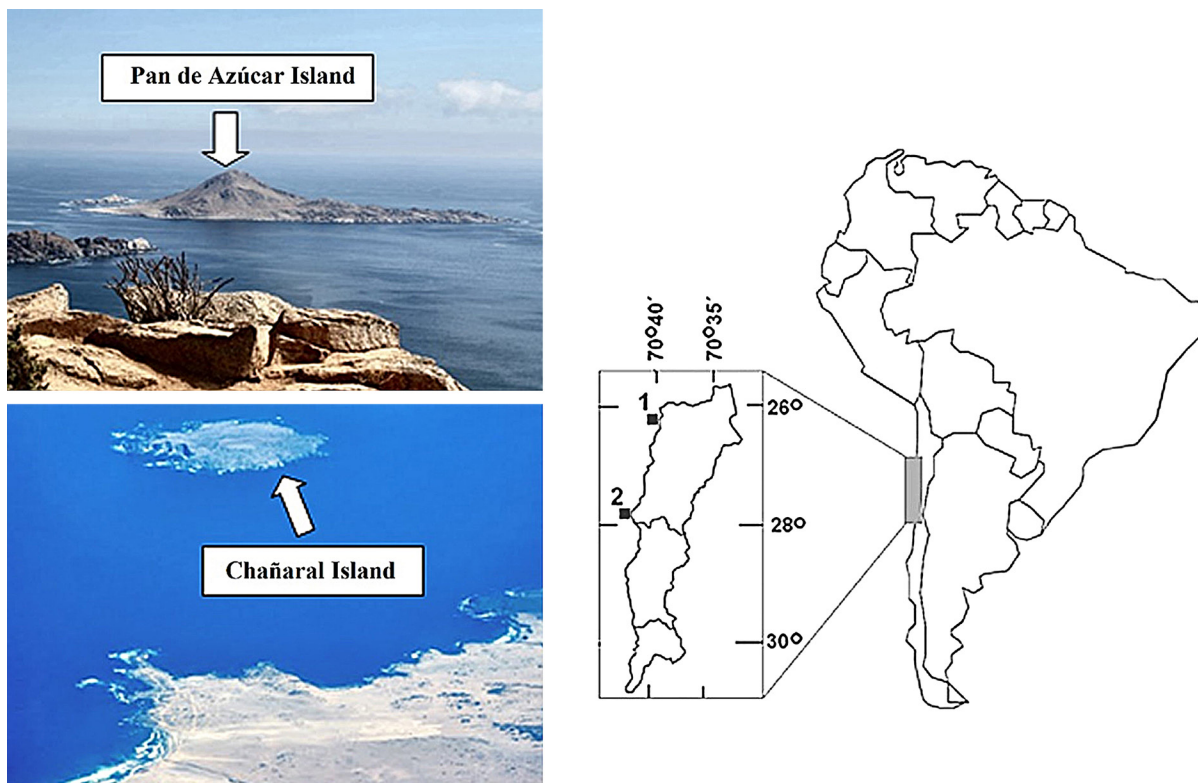


Figure S1.

Location of the Humboldt penguin colonies from northern Chile, where bones and claws were obtained in this study.

Table S1.

Comparison of mean elements levels (mean \pm standard deviation, $\mu\text{g/g}$ d.w) in bones of different penguin species.

Species	N	As	Pb	Cu	Zn	Mn	Ni	Se	Cr	Location	Date ^a	Reference
<i>P. adeliae</i>	n/i	-	1.60	0.10	160	-	-	-	-	Zhongshan ^b	2001	Yin et al., 2008
	1	0.07	<0.001	0.06	138.38	7.44	3.18	0.41	0.10	King George Is. ^c	2007-2010	Jerez et al., 2013a
	1	0.12	0.10	0.17	106.15	7.56	0.75	0.24	0.0002	Avian Is. ^d	2007-2010	Jerez et al., 2013a
	5	0.13 \pm 0.08	0.04 \pm 0.1	0.96 \pm 0.53	227 \pm 121.1	8.31 \pm 3.11	-	-	-	King George Is. ^c	2008-2009	Jerez et al., 2013b
<i>P. antarctica</i>	2	0.08 \pm 0.07	<0.001	0.17 \pm 0.22	221 \pm 9.2	6.66 \pm 0.57	0.25 \pm 0.01	0.73 \pm 0.29	0.16 \pm 0.07	King George Is. ^c	2007-2010	Jerez et al., 2013a
	4	0.04 \pm 0.01	0.21 \pm 0.12	0.19 \pm 0.1	138.8 \pm 20.6	8.4 \pm 1.25	2.90 \pm 1.02	1.13 \pm 0.69	0.24 \pm 0.48	Deception Is. ^c	2007-2010	Jerez et al., 2013a
	5	0.14 \pm 0.13	0.14 \pm 0.02	0.71 \pm 0.36	235 \pm 40.6	12.5 \pm 2.13	-	-	-	Deception Is. ^c	2008-2009	Jerez et al., 2013a
<i>P. papua</i>	1	0.13	0.19	0.79	184.1	11.01	-	-	-	King George Is. ^c	2008-2009	Jerez et al., 2013b
	13	0.19 \pm 0.04	<0.001	1.15 \pm 0.33	244.6 \pm 7.99	18.4 \pm 2.3	-	-	-	Byers Peninsula ^c	2009	Barbosa et al., 2013
	8	0.12 \pm 0.01	0.02 \pm 0.01	0.74 \pm 0.09	223.8 \pm 21.9	9.8 \pm 1.2	-	-	-	Hannah point ^c	2009	Barbosa et al., 2013
	2	0.06 \pm 0.01	0.15 \pm 0.19	0.20 \pm 0.11	180.1 \pm 29.4	8.3 \pm 1.8	3.54 \pm 1.21	0.38 \pm 0.04	0.13 \pm 0.11	King George Is. ^c	2007-2010	Jerez et al., 2013a
	1f	-	0.30 \pm 0.14	0.90 \pm 0.03	81 \pm 0.6	2.5 \pm 0.23	-	-	-	Livingston Is. ^c	2002-2006	Metcheva et al., 2010
<i>S. humboldti</i>	23	3.53 \pm 3.01	1.86 \pm 1.53	23.2 \pm 6.8	164 \pm 42.7	45.1 \pm 53.4	0.27 \pm 0.03	1.95 \pm 5.05	0.25 \pm 0.24	Pan de Azúcar Is. ^e	2015	Present study
	4	4.33 \pm 1.31	1.64 \pm 0.42	26.6 \pm 4.1	159 \pm 26.7	30.6 \pm 14.9	0.31 \pm 0.03	7.70 \pm 4.87	0.23 \pm 0.06	Chañaral Is. ^e	2015	Present study

^aSample collection; ^bMirror Peninsula (East Antarctica); ^cSouth Shetland Islands (West Antarctica); ^dSouthern of the Antarctica Peninsula; ^eNorthern Coast of Chile; ^fDuplicates were performed from the sample.

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