

## Supplementary data 1

**Table S1: Equations for frequency isopleths used to generate mechanics data.**  
Note that elastic work is expressed as  $\log_{10}(\text{elastic work})$ .

Species	Freq	Compliance <i>mL cm H<sub>2</sub>O<sup>-1</sup></i>		Tau <i>seconds</i>		Log (Elastic work) <i>Joules</i>		Resistive work <i>Joules</i>	
		Slope	Intercept	Slope	Intercept	Slope	Intercept	Slope	Intercept
Puna teal	20	-0.14088	5.4186	-0.0132	1.24145	0.08567	-3.30864	0.000422	-0.00241
	30	-0.22314	5.25868	-0.0431	1.3483	0.11532	-3.57393	0.000671	-0.00372
	40	-0.21137	4.46678	-0.0413	1.19125	0.12534	-3.5419	0.000974	-0.00516
	50	-0.16059	3.34279	-0.0516	1.21639	0.12716	-3.39819	0.0011	-0.00435
Speckled teal	20	-0.15882	2.89905	-0.0487	1.03967	0.14594	-3.48033	0.0012	-0.00374
	30	-0.25558	7.02079	-0.0962	2.69017	0.09567	-3.62765	0.000392	-0.00219
	40	-0.18189	4.70644	-0.0488	1.47918	0.10301	-3.54716	0.000372	-0.00074
	50	-0.13748	3.61482	-0.046	1.3011	0.09528	-3.34426	0.000301	0.0013
Ruddy duck (highland)	20	-0.09241	2.67448	-0.0398	1.13024	0.0991	-3.30296	0.000516	0.000563
	30	-0.08918	2.29918	-0.0427	1.04757	0.10001	-3.18192	0.000519	0.00182
	40	-0.03659	3.17204	-0.0449	1.8595	0.1205	-3.37661	0.000911	-0.0033
	50	-0.10101	3.74843	-0.0354	1.39383	0.12516	-3.37969	0.00142	-0.00604
Yellow-billed pintail	20	-0.06624	2.78955	-0.0359	1.27898	0.1227	-3.2485	0.0019	-0.00751
	30	-0.08222	2.62436	-0.0323	1.09125	0.10994	-3.07804	0.0017	-0.0047
	40	-0.09479	2.56817	-0.0264	0.9179	0.12659	-3.22544	0.0015	-0.00361
	50	-0.19367	7.34621	-0.0134	1.38518	0.1269	-3.55208	0.000379	-0.00115
Cinnamon teal (highland)	20	-0.19391	5.41647	-0.0008	0.869	0.13943	-3.4998	0.000961	-0.00386
	30	-0.25811	5.17671	0.00322	0.68819	0.15206	-3.48219	0.00125	-0.0046
	40	-0.28031	4.813	-0.037	1.03048	0.16519	-3.48311	0.0017	-0.00598
	50	-0.27066	4.06368	-0.0298	0.85126	0.18746	-3.53038	0.00204	-0.00673
Green-winged teal	20	-0.176	6.07228	-0.0483	1.9004	0.11891	-4.193	0.000217	0.000564
	30	-0.09335	3.85885	-0.0328	1.3173	0.10282	-3.42399	0.00064	-0.00358
	40	-0.13518	3.78623	-0.0359	1.20556	0.11261	-3.44285	0.000978	-0.00563
	50	-0.1561	3.55338	-0.0406	1.18712	0.12806	-3.50829	0.000764	-0.00264
Lowland ruddy duck	20	-0.1614	3.20883	-0.0323	0.99597	0.13215	-3.4319	0.00104	-0.00387
	30	-0.08636	3.66463	-0.0046	1.57524	0.05718	-3.19342	0.000116	0.000315
	40	-0.08618	3.15194	-0.0493	1.596	0.07419	-3.40704	0.000257	-0.00076
	50	-0.10426	3.07119	-0.0278	1.18682	0.0925	-3.56108	0.000578	-0.00372
Northern pintail	20	-0.05999	2.02437	-0.0505	1.26139	0.07917	-3.21392	0.000417	0.000142
	30	-0.03155	1.45774	-0.0484	1.11779	0.06701	-2.98753		
	40	-0.13407	4.54491	-0.0356	1.69509	0.09015	-3.32055	0.000775	-0.00525
	50	-0.10823	3.30096	-0.0402	1.48895	0.10544	-3.35968	0.00128	-0.00707
Lowland cinnamon teal	20	-0.13934	3.24693	-0.0594	1.57322	0.12127	-3.41213	0.00167	-0.00863
	30	-0.10842	2.55283	-0.0493	1.31386	0.11656	-3.28398	0.00249	-0.01345
	40	-0.14215	2.54226	-0.0735	1.42141	0.13594	-3.32945	0.00241	-0.01052
	50	0.02813	4.19927	-0.0227	1.41165	0.09708	-3.13595	0.000699	-0.00298
Mallard	20	-0.10759	4.88717	-0.0123	1.02636	0.14131	-3.42291	0.000989	-0.00352
	30	-0.2347	4.91717	-0.0284	1.01913	0.15354	-3.43217	0.00153	-0.00558
	40	-0.29027	4.66899	-0.0464	1.09919	0.18765	-3.58578	0.00191	-0.00653
	50	-0.34139	4.68514	-0.0448	0.97013	0.19389	-3.52639	0.00257	-0.00889
Gadwall	20	-0.12245	4.40648	-0.0153	1.25255	0.06029	-3.19468	0.000195	-0.00111
	30	-0.10462	3.43797	-0.0043	1.02203	0.08116	-3.45881	0.000272	-0.00083
	40	-0.09118	2.73044	-0.0165	0.95115	0.09384	-3.48706	0.000483	-0.00248
	50	-0.09029	2.4177	-0.029	0.95148	0.09736	-3.41752	0.000549	-0.00162
Gadwall	20	-0.04088	1.58265	-0.0565	1.08345	0.08798	-3.21149	0.000879	-0.00406
	30	0.15811	4.23218	0.00471	1.02858	0.11795	-3.16781	0.000791	-0.00296
	40	-0.04533	4.72927	-0.0089	0.87202	0.13158	-3.18147	0.00157	-0.00672
	50	-0.32329	6.0298	-0.0457	1.06034	0.17792	-3.40605	0.00229	-0.0096
Gadwall	20	-0.2822	4.92293	-0.0631	1.12095	0.18339	-3.34631	0.00289	-0.01129
	30	-0.27826	4.41005	-0.0637	1.01917	0.18465	-3.28613	0.00319	-0.0115
	40	0.02246	5.38243	0.00682	1.09305	0.12766	-3.33979	0.000719	-0.00304
	50	-0.12242	5.3849	0.00684	0.82912	0.15209	-3.46048	0.00109	-0.00383
Gadwall	20	-0.28042	5.55778	0.0016	0.77051	0.17757	-3.53474	0.00192	-0.00738
	30	-0.42774	6.064	-0.0468	1.03025		-3.5783	0.00221	-0.00765
	40	-0.41336	5.27063	-0.0546	0.99916	0.22288	-3.63347		
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