Supplementary Table 2. Summary of characteristics for 7 microsatellite loci in the polkadot skate (*Dipturus chinensis*) sampled during 2010–2017 from 6 populations (pops.) around Japan in the East China Sea, Sea of Japan, and Pacific Ocean.   Isls.=Islands; *n*=number of samples; *a*=number of alleles; *as*=allele size range in base pairs; A_R=allelic richness; H_O=observed heterozygosity; H_E=expected heterozygosity; and *HW*=probability values of Hardy–Weinberg equilibrium.

Locus		Danjo Isls.	Goto Isls.	Kyoto	Niigata	Kochi	Aomori	Mean of all pops.
LERI21	*n*	45	18	47	45	22	26	
	a	5	5	5	5	3	4	4.50
	as	261–269	261–269	261–269	261–269	261–267	261-267	
	A_R	4.84	5.00	4.16	4.18	2.97	3.97	4.19
	H_O	0.578	0.500	0.553	0.511	0.455	0.308	0.484
	H_E	0.677	0.592	0.593	0.629	0.546	0.424	0.577
	HW	0.085	0.247	0.091	0.007	0.421	0.017	
LERI26	*n*	48	18	47	48	23	26	
	a	10	8	10	10	5	6	8.17
	as	146–166	146–160	146–166	146–166	148–160	138-158	
	A_R	8.91	8.00	9.00	8.42	4.74	4.96	7.34
	H_O	0.521	0.500	0.702	0.729	0.348	0.269	0.512
	H_E	0.867	0.792	0.857	0.858	0.654	0.284	0.719
	HW	0.000*	0.013	0.003*	0.000*	0.002*	0.474	
LERI33	*n*	48	18	47	48	23	26	
	a	1	1	1	1	1	1	1.00
	as	182	182	182	182	182	182	
	A_R	–	–	–	–	–	–	–
	H_O	–	–	–	–	–	–	–
	H_E	–	–	–	–	–	–	–
	HW	–	–	–	–	–	–	
LERI34	*n*	46	18	47	48	22	26	
	a	9	7	7	6	4	4	6.17
	as	265–283	265–283	265–283	265–283	275–281	275-281	
	A_R	7.09	7.00	5.48	5.23	3.81	3.69	5.38
	H_O	0.696	0.833	0.553	0.542	0.318	0.385	0.555
	H_E	0.745	0.816	0.681	0.681	0.290	0.438	0.608
	HW	0.674	0.868	0.405	0.010	1.000	0.274	

Locus		Danjo Isls.	Goto Isls.	Kyoto	Niigata	Kochi	Aomori	Mean of all pops.
LERI44	n	47	18	47	47	22	26	
	a	15	15	16	15	11	12	14.00
	as	281–311	281–313	285–317	287–317	285–305	281-317	
	A_R	12.77	15.00	12.46	11.33	10.06	10.64	12.04
	H_O	0.894	0.833	0.915	0.830	0.864	0.808	0.857
	H_E	0.909	0.940	0.913	0.886	0.783	0.860	0.882
	HW	0.080	0.152	0.671	0.219	0.508	0.657	
LERI50	n	46	18	47	48	23	26	
	a	7	6	7	5	6	5	6.00
	as	291–303	295–317	295–309	295–305	295–305	293-301	
	A_R	5.41	6.00	5.62	4.76	5.73	4.36	5.31
	H_O	0.717	0.722	0.702	0.625	0.609	0.423	0.633
	H_E	0.755	0.775	0.733	0.723	0.616	0.599	0.700
	HW	0.946	0.156	0.881	0.173	0.823	0.053	
LERI63	n	45	18	47	48	23	26	
	a	12	11	14	11	9	23	13.33
	as	280–308	284–304	295–309	284–304	288–308	290-354	
	A_R	9.21	11.00	11.49	10.08	8.72	19.16	11.61
	H_O	0.578	0.556	0.660	0.646	0.261	0.769	0.578
	H_E	0.872	0.900	0.906	0.899	0.834	0.955	0.894
	HW	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	
Mean of all loci[a]	a	9.67	8.67	9.83	8.67	6.33	9.00	8.70
	A_R	8.04	8.67	8.04	7.33	6.01	7.80	7.65
	H_O	0.664	0.657	0.681	0.647	0.476	0.494	
	H_E	0.804	0.802	0.781	0.779	0.621	0.593	

* Significant after sequential Bonferroni correction (initial $\alpha=0.05/6=0.0083$)

[a] The locus *LERI33* was excluded from the estimation