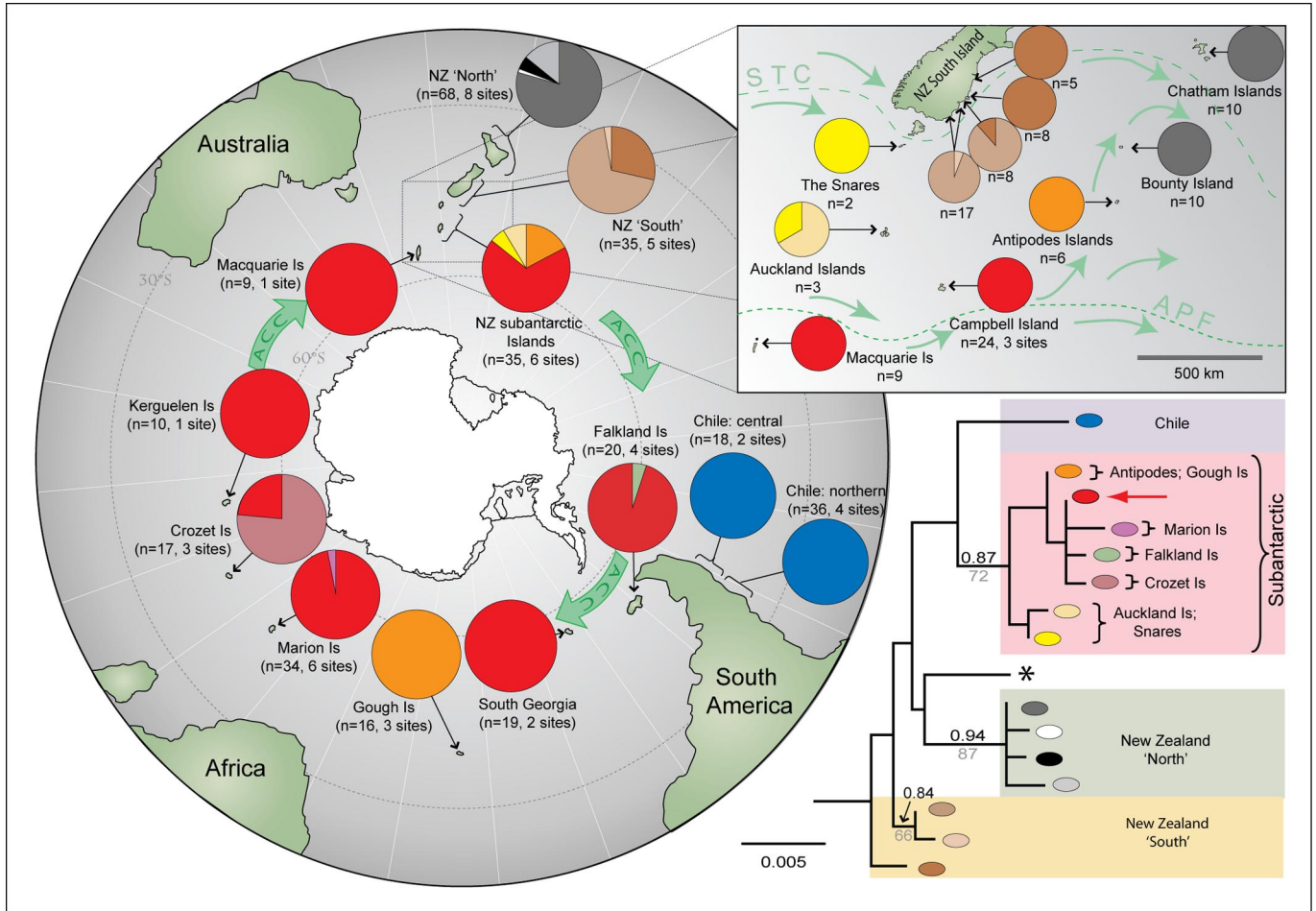


# Supporting Information

Fraser et al. 10.1073/pnas.0810635106



**Fig. S1.** Phylogeographic patterns within *D. antarctica* based on *rbcL* data. The phylogenetic tree (Lower Right) indicates haplotype relationships, with Bayesian PP values above branches and ML bootstraps below. Outgroup taxa have been removed for clarity. "NZ subantarctic" refers to the Snares, Auckland, Campbell, and Antipodes Islands. The morphologically and genetically distinct "cape" form of *D. antarctica*, recently identified by Fraser et al. [Fraser CI, Hay CH, Spencer HG, Waters JM (2009) Genetic and morphological analyses of the southern bull kelp *Durvillaea antarctica* (Phaeophyceae: Durvillaeales) in New Zealand reveal cryptic species. *J Phycol*, in press.] from southeastern New Zealand, is indicated by an asterisk. The global projection shows haplotype distributions and proportions at each locality. Diversity in the southern New Zealand region is illustrated at higher magnification (Inset, Upper Right). Green arrows show major surface currents.

Table S1. Number of individuals sequenced from each site

Species	Clade	Area	Site(s)	No. COI	No. rbCL
<i>D. potatorum</i>	Outgroup	Tasmania	Numerous	20	20
<i>D. willana</i>	Outgroup	Southeastern NZ	Numerous	20	20
<i>D. antarctica</i>	"Cape" form	Catlins	Brighton	27	27
<i>D. antarctica</i>	Chile: central	Chile	Bahia Mansa	5	0
<i>D. antarctica</i>	Chile: central	Chile	Cucao	10	9
<i>D. antarctica</i>	Chile: central	Chile	Loncoyen	9	9
<i>D. antarctica</i>	Chile: northern	Chile	Constitucion	6	9
<i>D. antarctica</i>	Chile: northern	Chile	Pichicuy	10	8
<i>D. antarctica</i>	Chile: northern	Chile	Montemar	10	10
<i>D. antarctica</i>	Chile: northern	Chile	Tumbes	8	9
<i>D. antarctica</i>	New Zealand "North"	Bounty Islands		7	10
<i>D. antarctica</i>	New Zealand "North"	Cape Campbell		4	7
<i>D. antarctica</i>	New Zealand "North"	Chatham Islands		20	10
<i>D. antarctica</i>	New Zealand "North"	Auckland	Maori Bay	5	9
<i>D. antarctica</i>	New Zealand "North"	Gisborne	Turihau Reef	0	3
<i>D. antarctica</i>	New Zealand "North"	Kaikoura	Raramai Tunnels	5	10
<i>D. antarctica</i>	New Zealand "North"	Wellington	Sandy Bay	6	8
<i>D. antarctica</i>	New Zealand "South"	Catlins	Tautuku and Brighton	11	17
<i>D. antarctica</i>	New Zealand "South"	Dunedin	Second Beach	8	8
<i>D. antarctica</i>	New Zealand "South"	Dunedin	Taiaroa Heads	8	8
<i>D. antarctica</i>	New Zealand "South"	Oamaru	Moeraki	4	5
<i>D. antarctica</i>	Subantarctic	Antipodes Islands		6	6
<i>D. antarctica</i>	Subantarctic	Auckland Islands	Enderby Island	8	3
<i>D. antarctica</i>	Subantarctic	Campbell Island	Perseverance Harbour	10	11
<i>D. antarctica</i>	Subantarctic	Campbell Island	Capstan Cove	8	8
<i>D. antarctica</i>	Subantarctic	Campbell Island	Monumental Harbour	4	5
<i>D. antarctica</i>	Subantarctic	Crozet Islands	Jardin Japonais	5	6
<i>D. antarctica</i>	Subantarctic	Crozet Islands	Baie Américaine	6	4
<i>D. antarctica</i>	Subantarctic	Crozet Islands	Baie du Marin	6	7
<i>D. antarctica</i>	Subantarctic	Falkland Islands	Kidney Island and Cape Pembroke	12	9
<i>D. antarctica</i>	Subantarctic	Falkland Islands	Sea Lion Island	12	11
<i>D. antarctica</i>	Subantarctic	Falkland Islands	New Island	3	0
<i>D. antarctica</i>	Subantarctic	South Georgia	St Andrew's Bay	9	9
<i>D. antarctica</i>	Subantarctic	South Georgia	Ocean Harbour	10	10
<i>D. antarctica</i>	Subantarctic	Gough Island	Seal Beach	6	6
<i>D. antarctica</i>	Subantarctic	Gough Island	The Glen	8	9
<i>D. antarctica</i>	Subantarctic	Gough Island	Admirals	8	1
<i>D. antarctica</i>	Subantarctic	Kerguelen Island	Port-Aux-Français	10	10
<i>D. antarctica</i>	Subantarctic	Macquarie Island		10	9
<i>D. antarctica</i>	Subantarctic	Marion Island	Ship's Cove	1	2
<i>D. antarctica</i>	Subantarctic	Marion Island	Storm Petrel Bay, near Repetto's	5	5
<i>D. antarctica</i>	Subantarctic	Marion Island	Rook's Peninsula, Rook's Bay	6	8
<i>D. antarctica</i>	Subantarctic	Marion Island	Blowholes near Trypot Beach	8	8
<i>D. antarctica</i>	Subantarctic	Marion Island	Cape Davis	2	1
<i>D. antarctica</i>	Subantarctic	Marion Island	Kildalkey Bay	1	1
<i>D. antarctica</i>	Subantarctic	Snares		2	2
TOTAL <i>D. antarctica</i>				329	327