

Appendix Table 1.2. Region-of-origin for California cartilaginous fishes as inferred from BioGeoBEARS analyses. (from Miller 2023)

Species	Order	Family	Habitat	# maps inferring northern origin	# maps inferring southern origin	# maps indet.	region of origin coded in plots
<i>Carcharhinus brachyurus</i>	Carcharhiniiformes	Carcharhinidae	pelagic	0	95	5	S
<i>Carcharhinus leucas</i>	Carcharhiniiformes	Carcharhinidae	pelagic	0	96	4	S
<i>Carcharhinus obscurus</i>	Carcharhiniiformes	Carcharhinidae	pelagic	0	98	2	S
<i>Nasolamia velox</i>	Carcharhiniiformes	Carcharhinidae	demersal	0	95	5	S
<i>Prionace glauca</i>	Carcharhiniiformes	Carcharhinidae	pelagic	1	97	2	S
<i>Rhizoprionodon longurio</i>	Carcharhiniiformes	Carcharhinidae	demersal	0	94	6	S
<i>Carcharodon carcharias</i>	Carcharhiniiformes	Lamnidae	pelagic	10	88	2	S
<i>Apristurus brunneus</i>	Carcharhiniiformes	Pentanchidae	both demersal and pelagic	44	50	6	unclear
<i>Apristurus kampae</i>	Carcharhiniiformes	Pentanchidae	demersal	44	53	3	unclear
<i>Parmaturus xaniurus</i>	Carcharhiniiformes	Pentanchidae	demersal	53	41	6	unclear
<i>Cephaloscyllium ventriosum</i>	Carcharhiniiformes	Scyliorhinidae	demersal	0	94	6	S
<i>Sphyrna lewini</i>	Carcharhiniiformes	Sphyrnidae	pelagic	0	99	1	S
<i>Galeorhinus galeus</i>	Carcharhiniiformes	Triakidae	pelagic	43	49	8	unclear
<i>Mustelus californicus</i>	Carcharhiniiformes	Triakidae	demersal	0	97	3	S
<i>Mustelus henlei</i>	Carcharhiniiformes	Triakidae	demersal	42	45	13	unclear
<i>Mustelus lunulatus</i>	Carcharhiniiformes	Triakidae	demersal	0	96	4	S
<i>Triakis semifasciata</i>	Carcharhiniiformes	Triakidae	demersal	32	42	26	unclear
<i>Hydrolagus colliei</i>	Chimaeriformes	Chimaeridae	demersal	51	40	9	unclear
<i>Hydrolagus melanophasma</i>	Chimaeriformes	Chimaeridae	demersal	1	92	7	S
<i>Echinorhinus cookei</i>	Echinorhiniiformes	Echinorhinidae	demersal	49	46	5	unclear
<i>Heterodontus francisci</i>	Heterodontiformes	Heterodontidae	demersal	1	96	3	S

<i>Chlamydoselachus anguineus</i>	Hexanchiformes	Chlamydoselachidae	demersal	28	69	3	unclear
<i>Hexanchus griseus</i>	Hexanchiformes	Hexanchidae	demersal	28	69	3	unclear
<i>Notorynchus cepedianus</i>	Hexanchiformes	Hexanchidae	demersal	28	69	3	unclear
<i>Alopias superciliosus</i>	Lamniformes	Alopiidae	pelagic	10	88	2	S
<i>Alopias vulpinus</i>	Lamniformes	Alopiidae	pelagic	10	88	2	S
<i>Cetorhinus maximus</i>	Lamniformes	Cetorhinidae	pelagic	10	88	2	S
<i>Isurus oxyrinchus</i>	Lamniformes	Lamnidae	pelagic	10	88	2	S
<i>Lamna ditropis</i>	Lamniformes	Lamnidae	pelagic	10	88	2	S
<i>Dasyatis dipterygia</i>	Myliobatiformes	Dasyatidae	demersal	0	91	9	S
<i>Pteroplatytrygon violacea</i>	Myliobatiformes	Dasyatidae	pelagic	41	43	16	unclear
<i>Gymnura marmorata</i>	Myliobatiformes	Gymnuridae	demersal	0	93	7	S
<i>Manta birostris</i>	Myliobatiformes	Mobulidae	pelagic	0	100	0	S
<i>Myliobatis californicus</i>	Myliobatiformes	Myliobatidae	demersal	38	53	9	unclear
<i>Urolophus halleri</i>	Myliobatiformes	Urolophidae	demersal	0	100	0	S
<i>Rhincodon typus</i>	Orectolobiformes	Rhincodontidae	pelagic	1	87	12	S
<i>Bathyrhina abyssicola</i>	Rajiformes	Arhynchobatidae	demersal	98	1	1	N
<i>Bathyrhina aleutica</i>	Rajiformes	Arhynchobatidae	demersal	98	1	1	N
<i>Amblyrhina hyperborea</i>	Rajiformes	Rajidae	demersal	53	44	3	unclear
<i>Beringia binoculata</i>	Rajiformes	Rajidae	demersal	52	44	4	unclear
<i>Raja inornata</i>	Rajiformes	Rajidae	demersal	52	44	4	unclear
<i>Raja rhina</i>	Rajiformes	Rajidae	demersal	52	44	4	unclear
<i>Raja stellulata</i>	Rajiformes	Rajidae	demersal	52	44	4	unclear
<i>Rhinobatos productus</i>	Rhinopristiformes	Rhinobatidae	demersal	0	98	2	S
<i>Zapaterus exasperatus</i>	Rhinopristiformes	Trygonorrhinidae	demersal	1	94	5	S
<i>Euprotomus bispinatus</i>	Squaliformes	Dalatiidae	pelagic	0	99	1	S
<i>Isistius brasiliensis</i>	Squaliformes	Dalatiidae	pelagic	0	97	3	S

<i>Somniosus pacificus</i>	Squaliformes	Somniosidae	demersal	47	48	5	unclear
<i>Zameus squamulosus</i>	Squaliformes	Somniosidae	demersal	0	95	5	S
<i>Squalus acanthias</i>	Squaliformes	Squalidae	demersal	40	28	32	unclear
<i>Squatina californica</i>	Squatiniiformes	Squatinae	demersal	43	53	4	unclear
<i>Platyrrhinoidis triseriata</i>	Torpediniiformes	Platyrrhinidae	demersal	0	96	4	S
<i>Torpedo californica</i>	Torpediniiformes	Torpedinidae	demersal	47	48	5	unclear
<i>Harriotta raleighana</i>	Chimaeriformes	Rhinochimaeridae	demersal	0	91	9	S