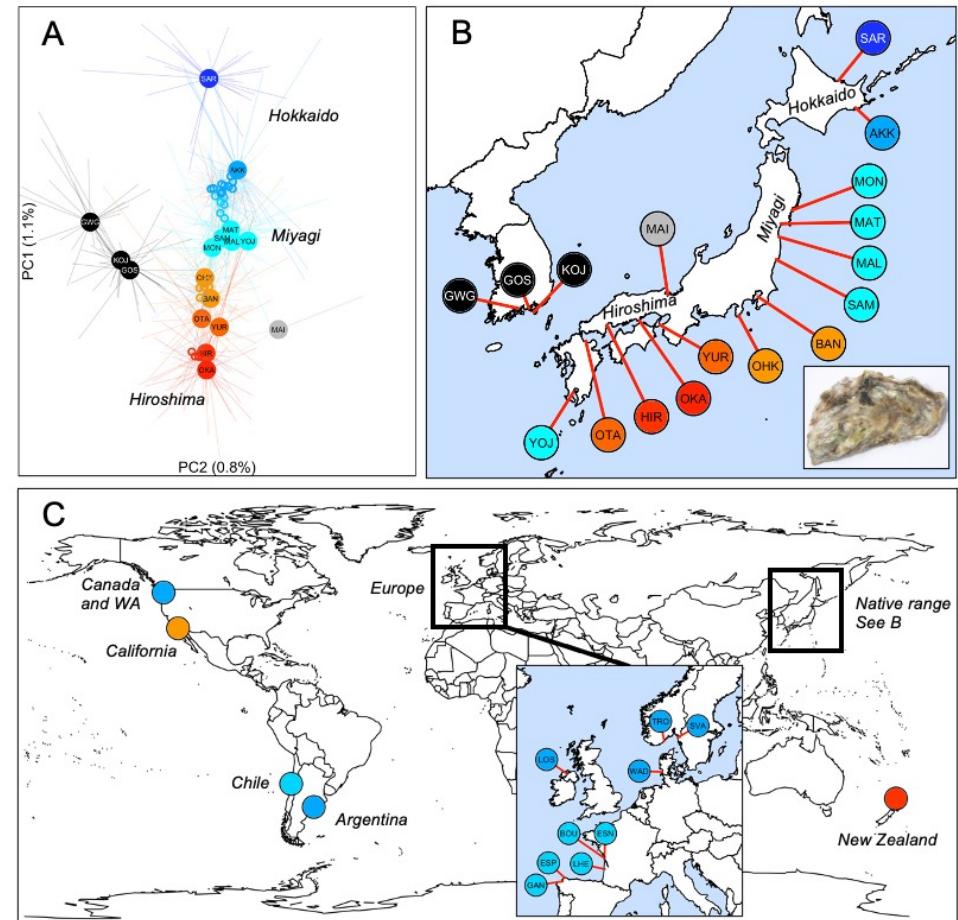
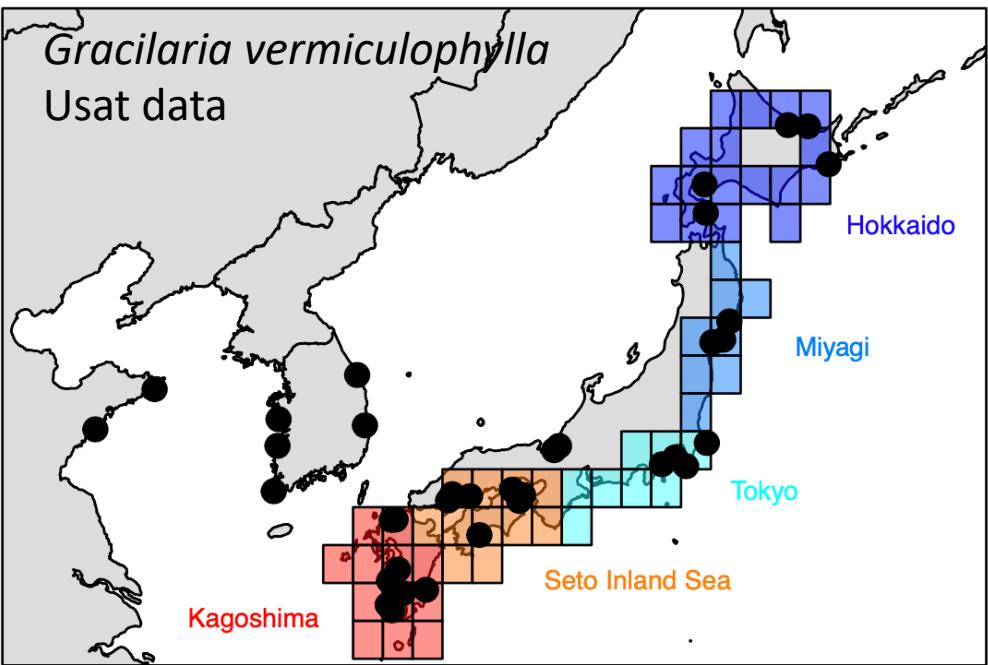


ML output = cross validation accuracy 69.9%

pred	actual	Argentina	Chile	EuropeNorth	EuropeSouth	New Zealand	NW America	soCal
hok		0	1		2		3	
hon		34	14		67		58	
tok		0	0		0		0	
sea		0	3		0		0	
kag		0	0		0		0	
nonSource		0	0		0		0	

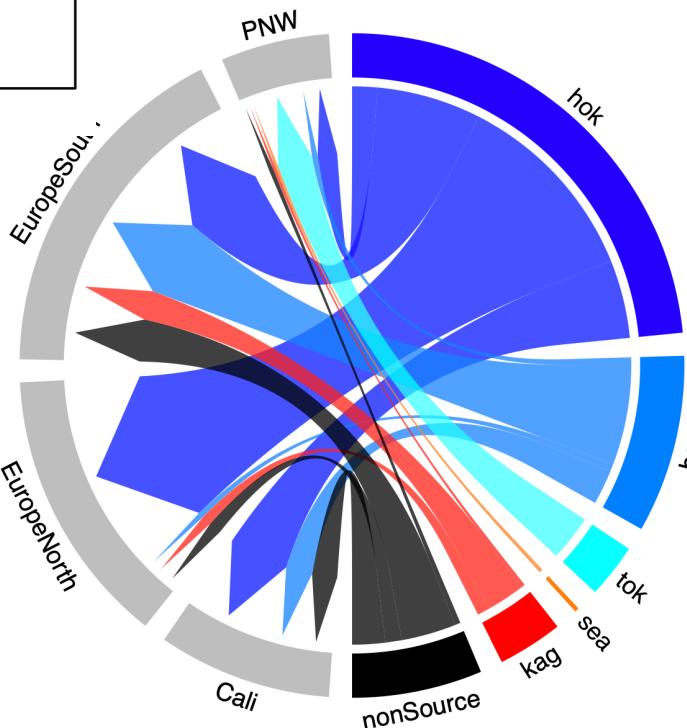
Original data



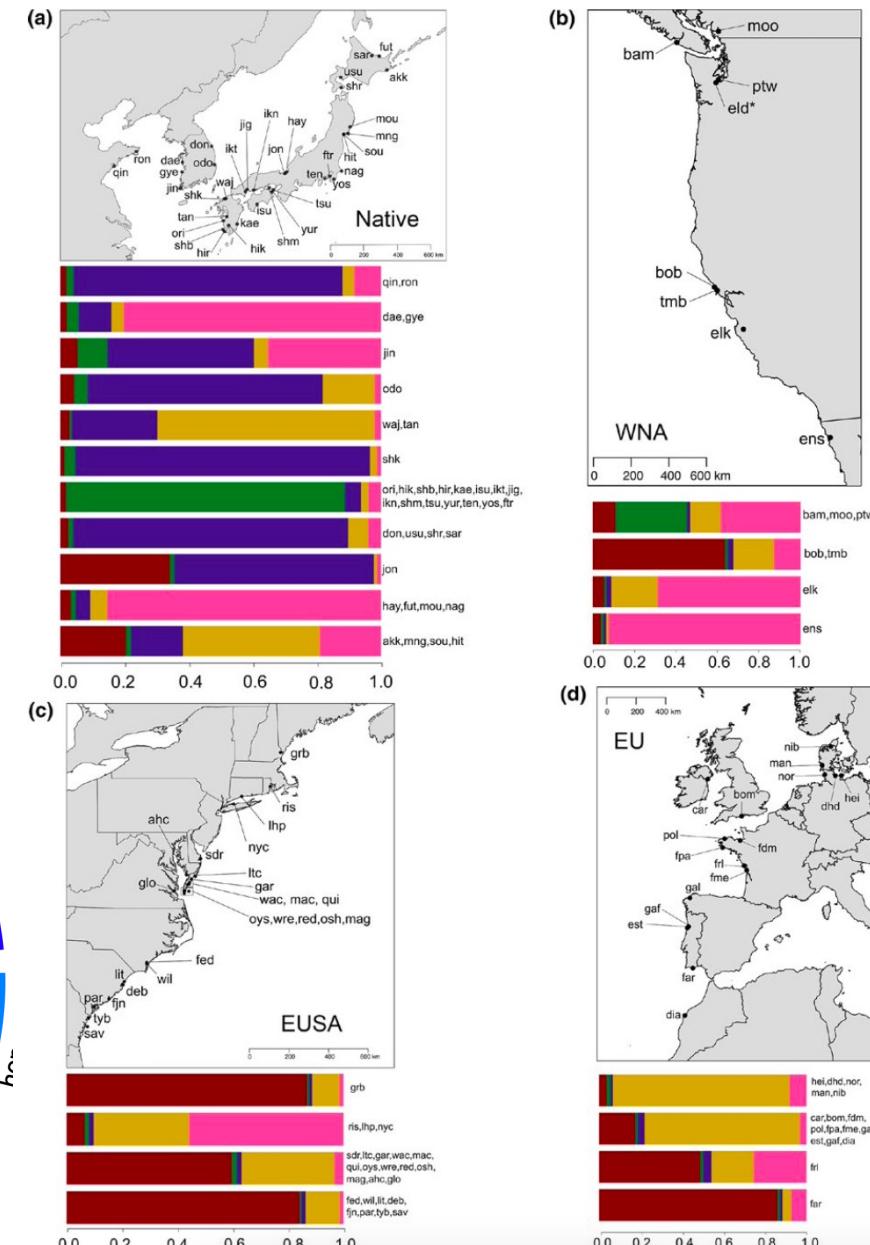


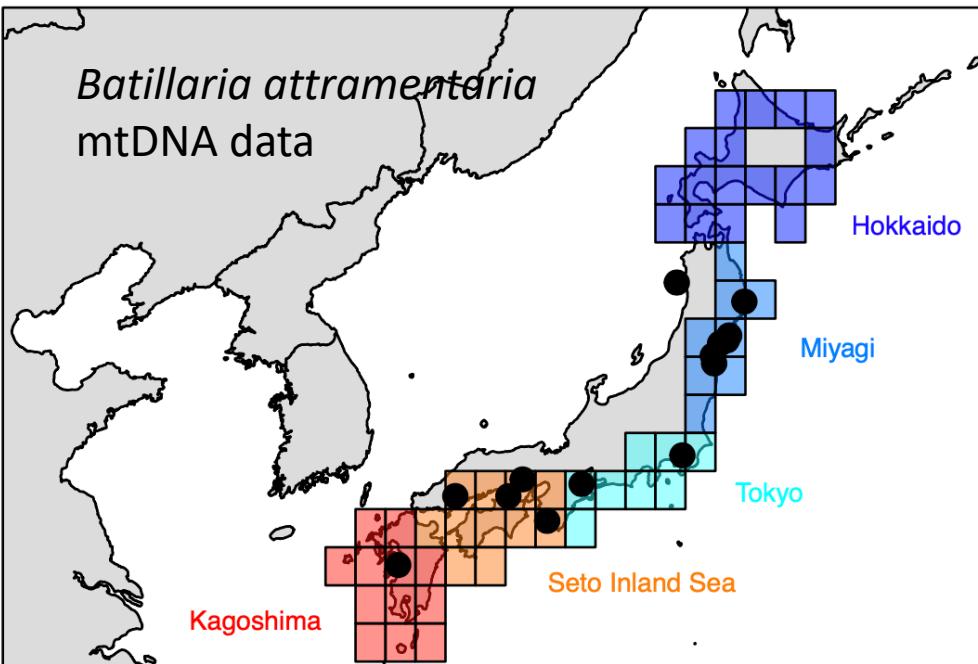
ML output = cross validation accuracy 93.0%

actual		Cali	EuropeNorth	EuropeSouth	PNW
pred					
hok	43	108		57	14
hon	19	4		55	4
tok	0	0		0	25
sea	0	0		0	2
kag	0	7		21	2
nonSource	18	9		30	3

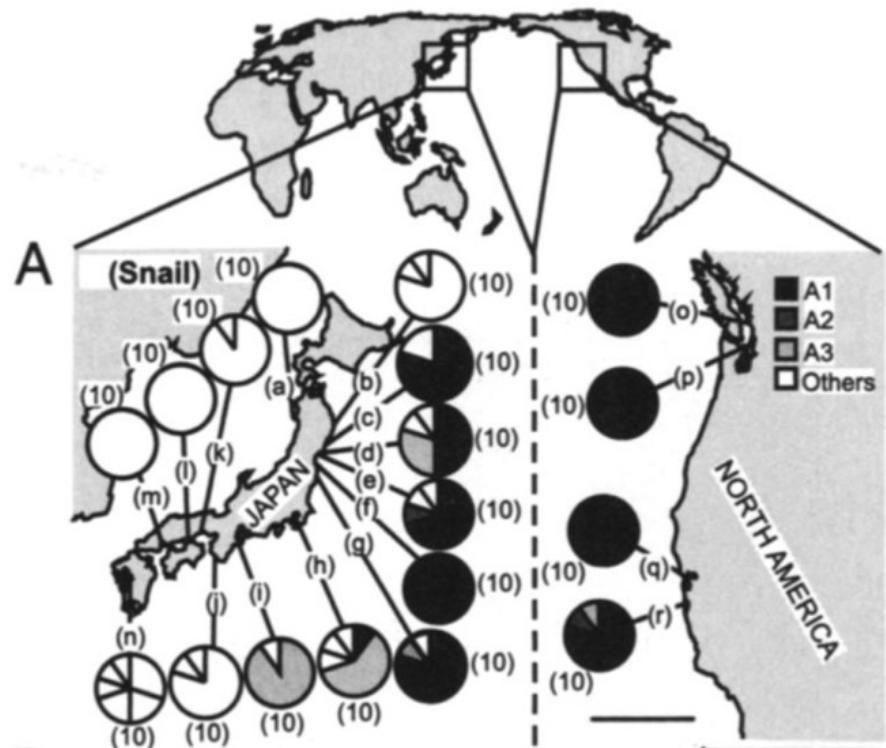


Original data –
Krueger-Hadfield
et al 2017



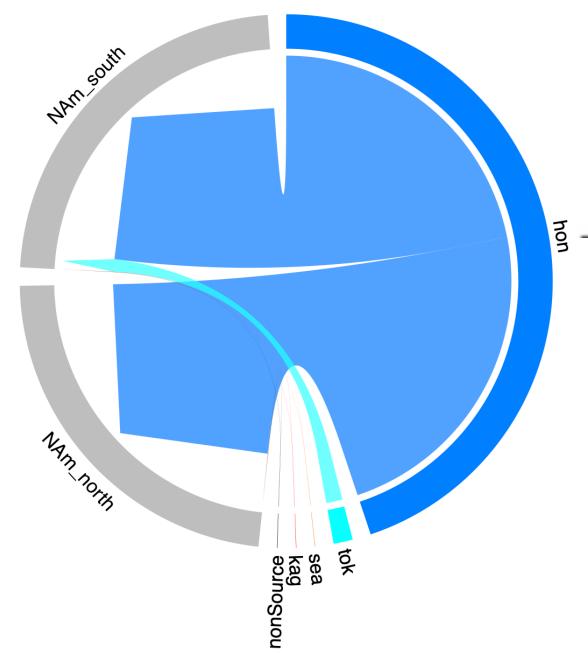


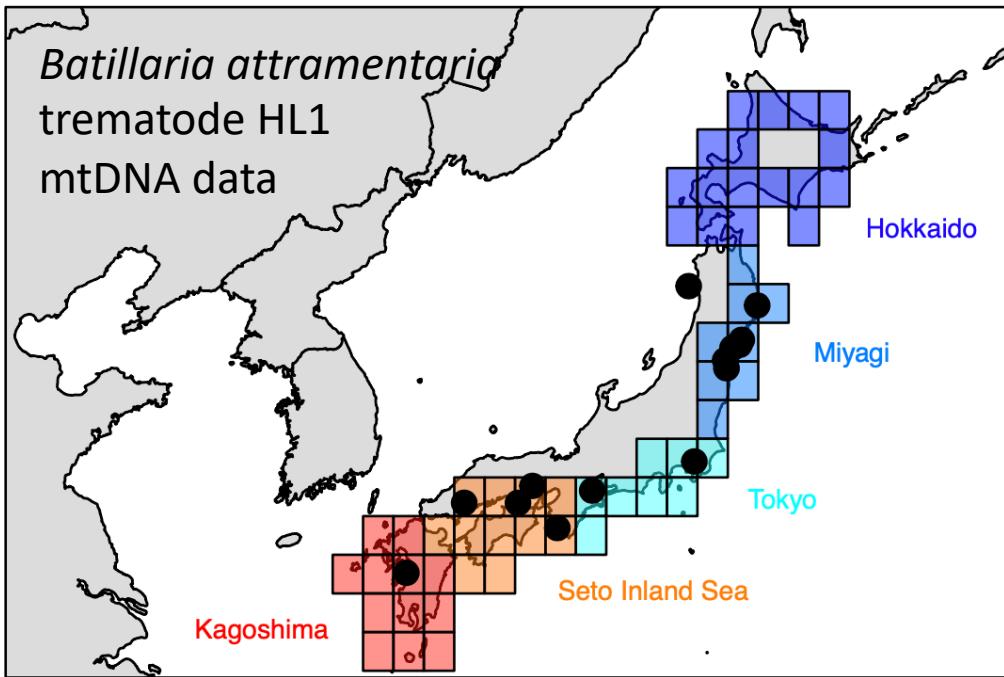
Original data – Miura et al 2006 PNAS



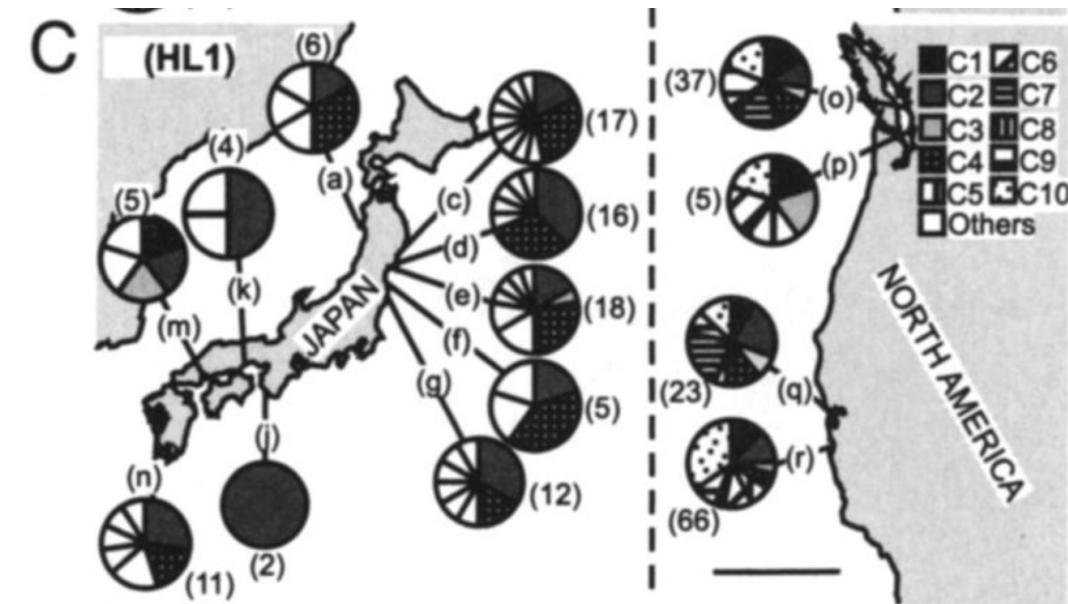
ML output = cross validation accuracy 85.3%

actual		NAm_north	NAm_south
pred			
hon		20	19
tok		0	1
sea		0	0
kag		0	0
nonSource		0	0



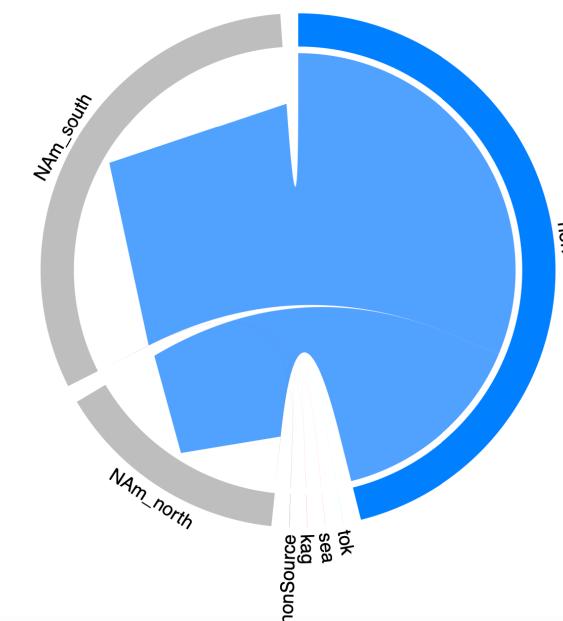


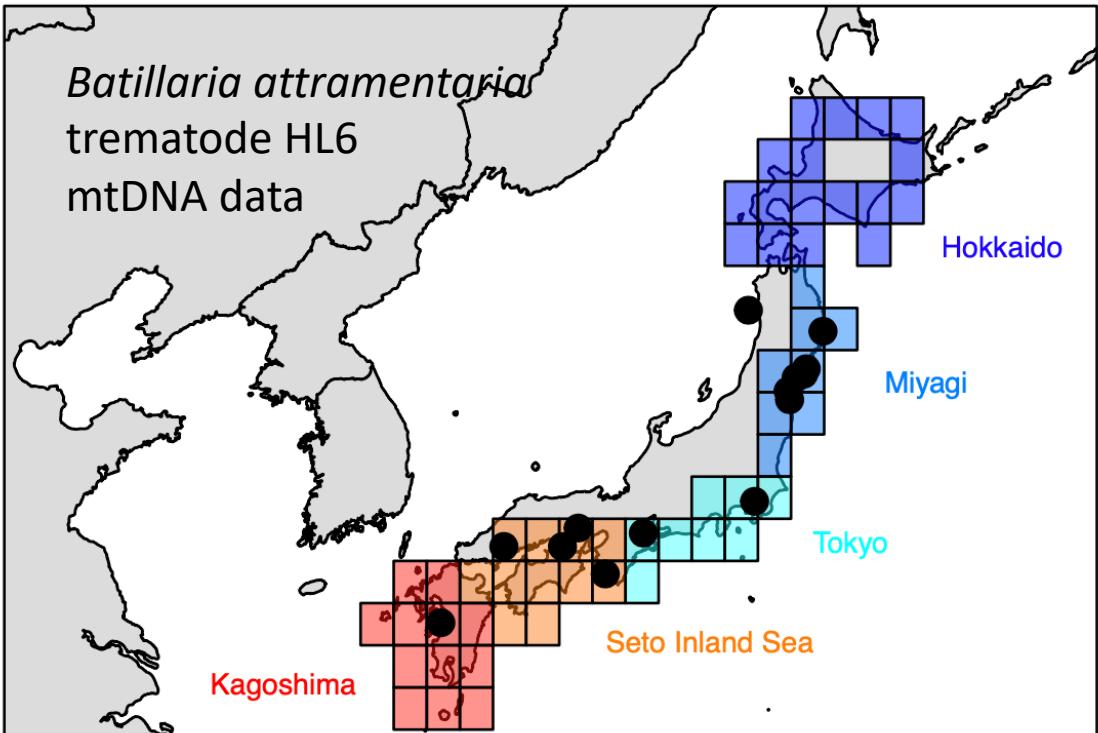
Original data – Miura et al 2006 PNAS



ML output = cross validation accuracy 68.0%

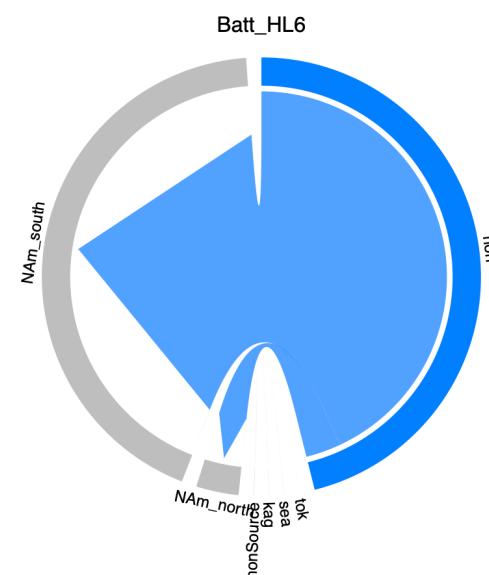
actual		
pred	NAm_north	NAm_south
hon	42	89
tok	0	0
sea	0	0
kag	0	0
nonSource	0	0



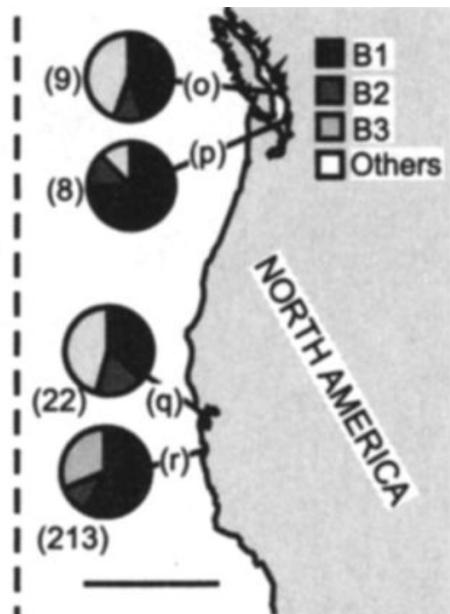
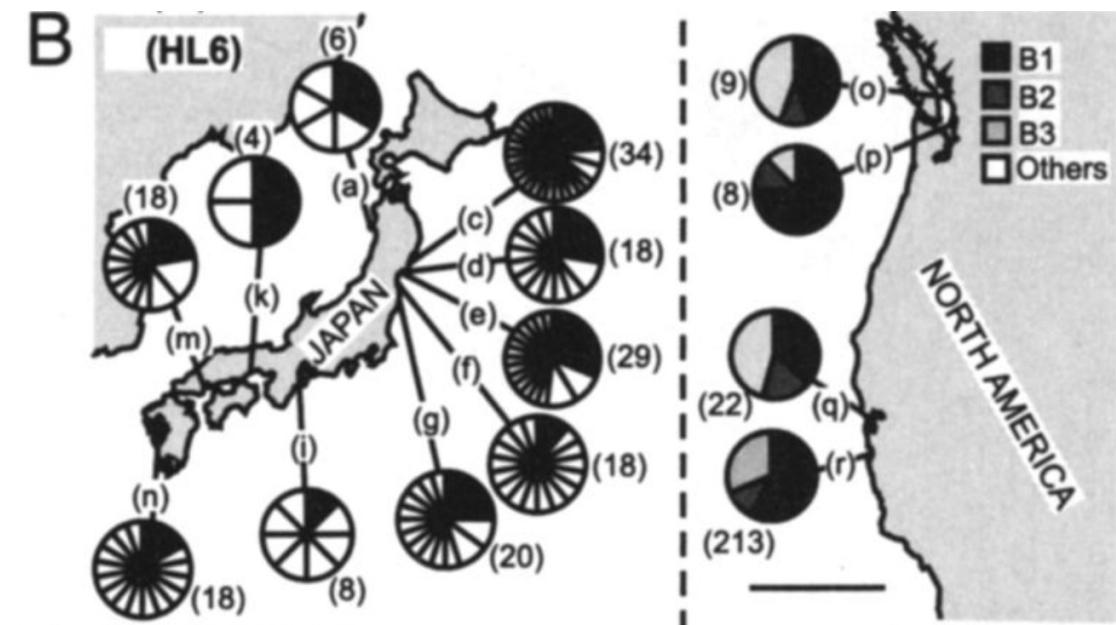


ML output = cross validation accuracy 67.5%

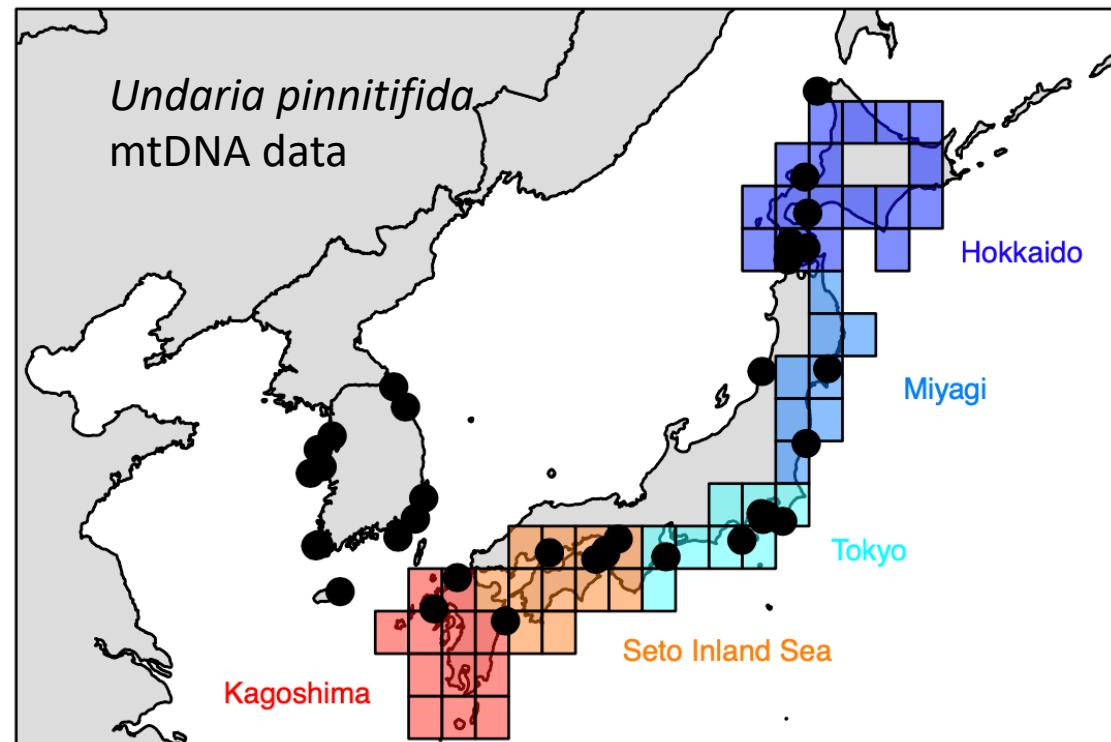
actual		
pred	NAm_north	NAm_south
hon	17	235
tok	0	0
sea	0	0
kag	0	0
nonSource	0	0



Original data – Miura et al 2006 PNAS



Undaria pinnatifida
mtDNA data

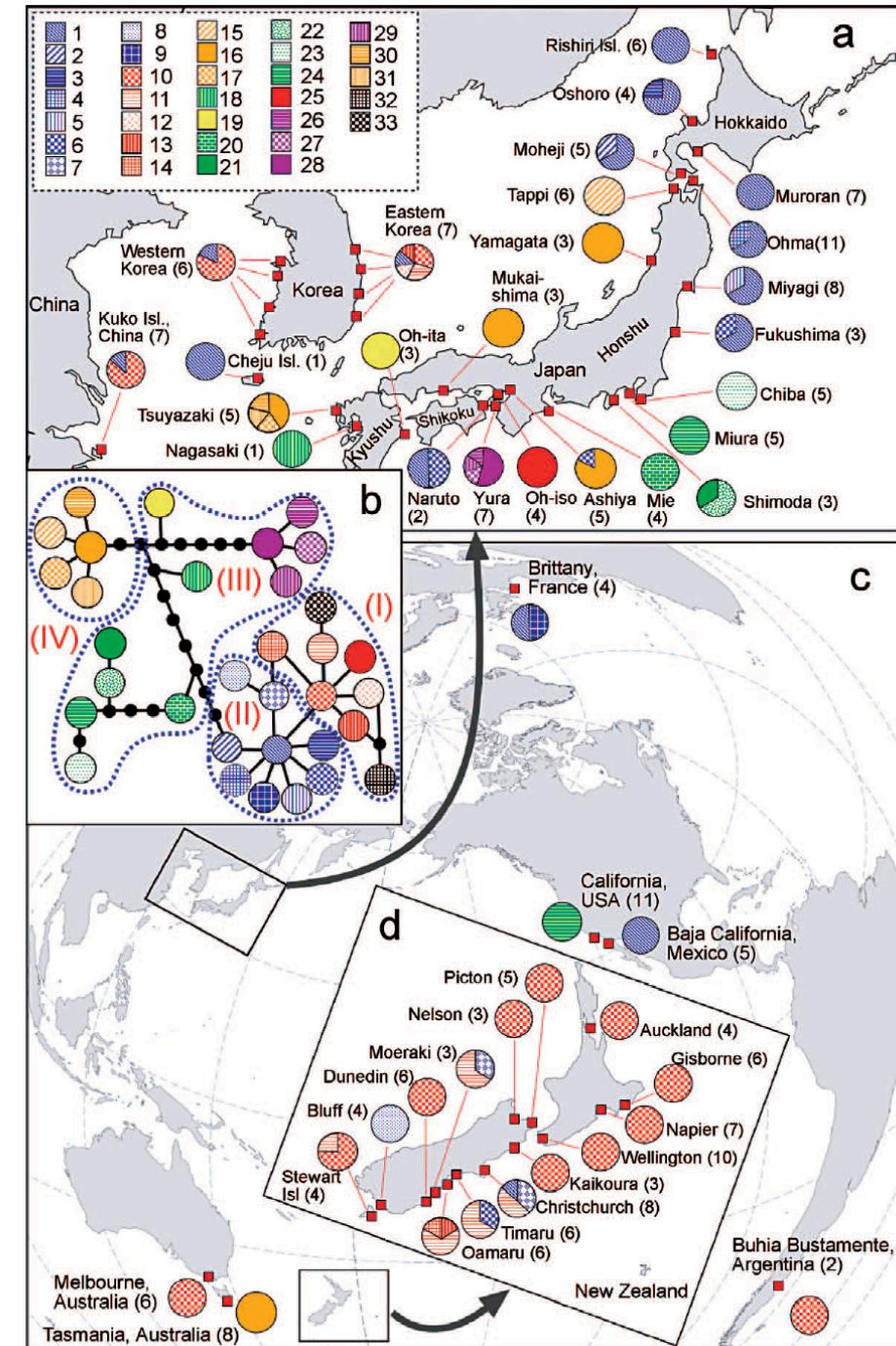
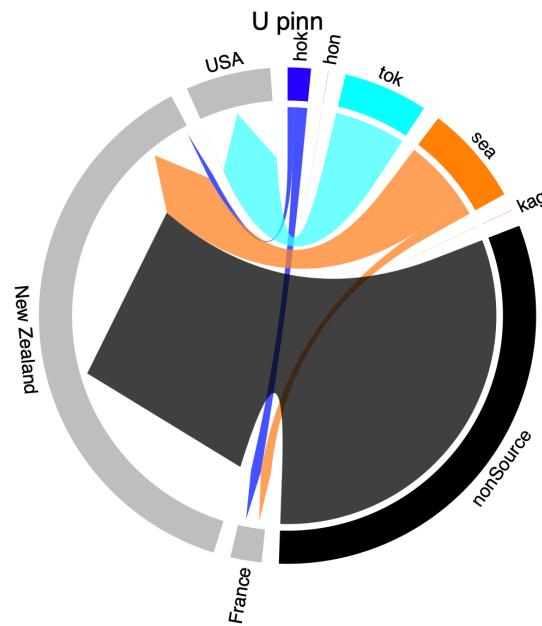


Original data –
Uwai et al 2006

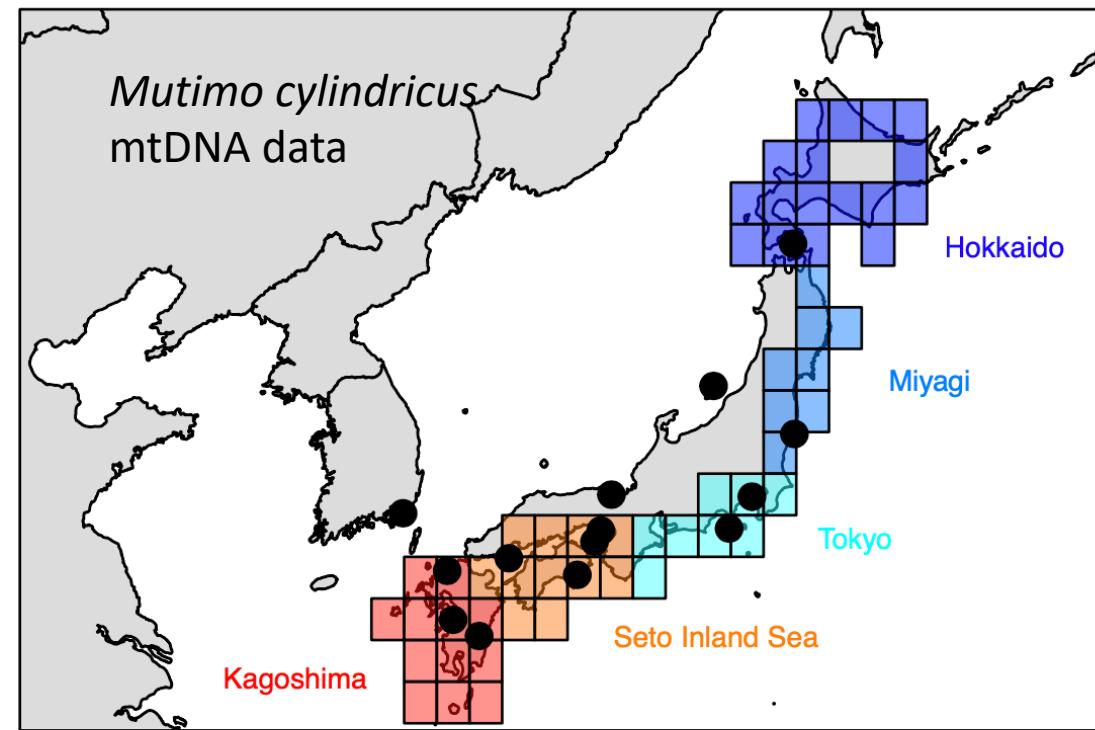
ML output = cross validation accuracy 76.4%

> UDL

		actual		
		France	New Zealand	USA
pred		2	1	0
hok		2	1	0
hon		0	0	0
tok		0	0	11
sea		2	11	0
kag		0	0	0
nonSource		0	63	0



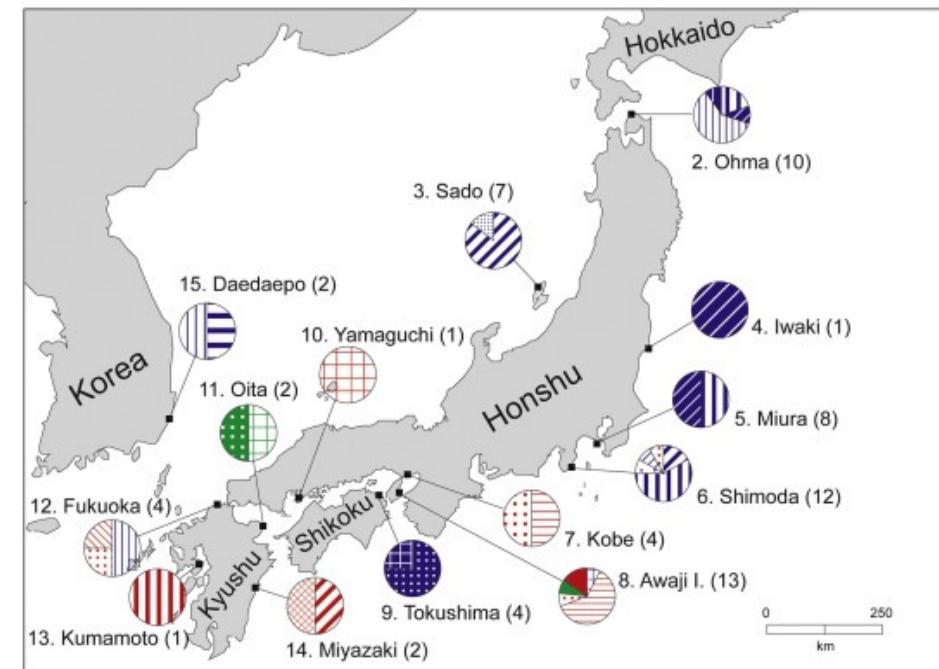
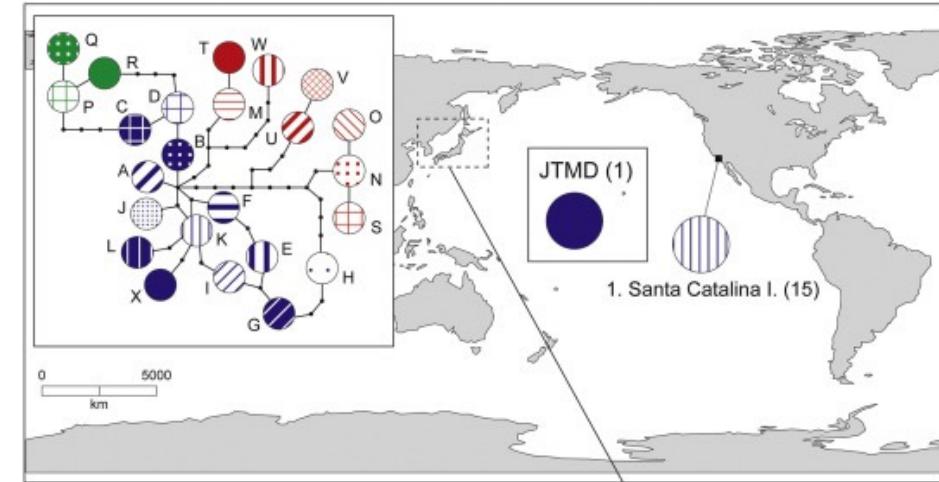
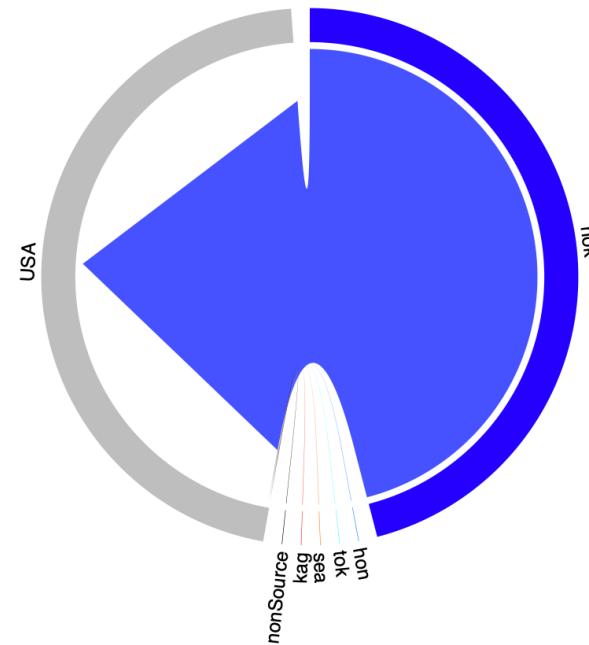
Mutimo cylindricus
mtDNA data



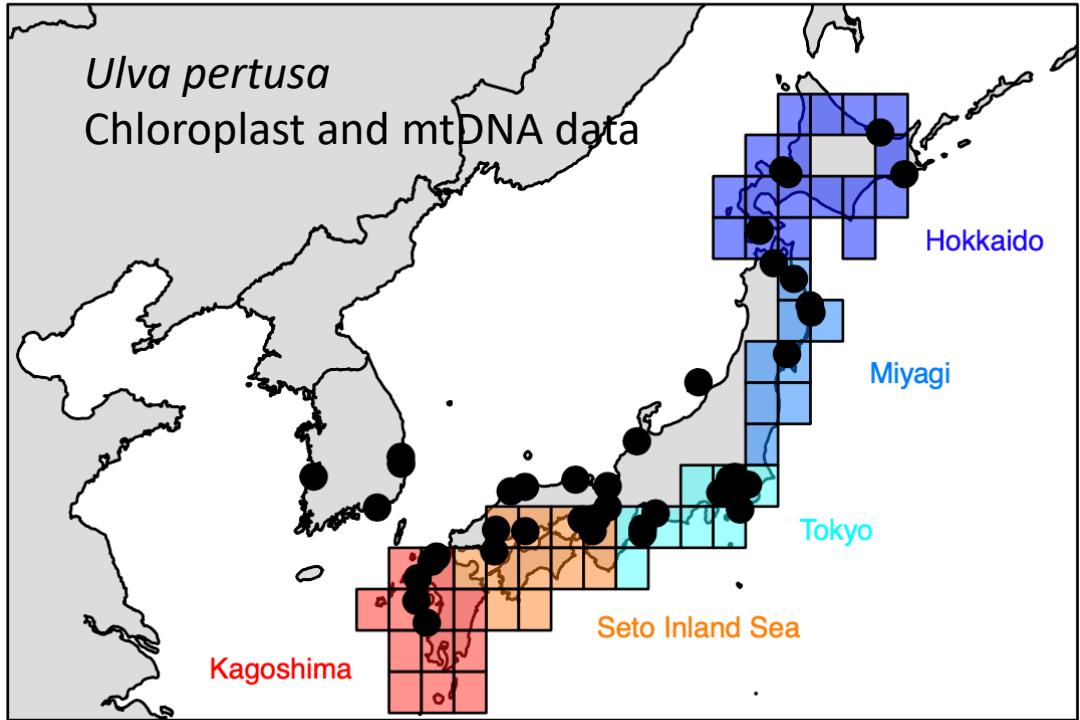
Original data –
Hanyuda et al.
2018

ML output = cross validation accuracy 72.7%

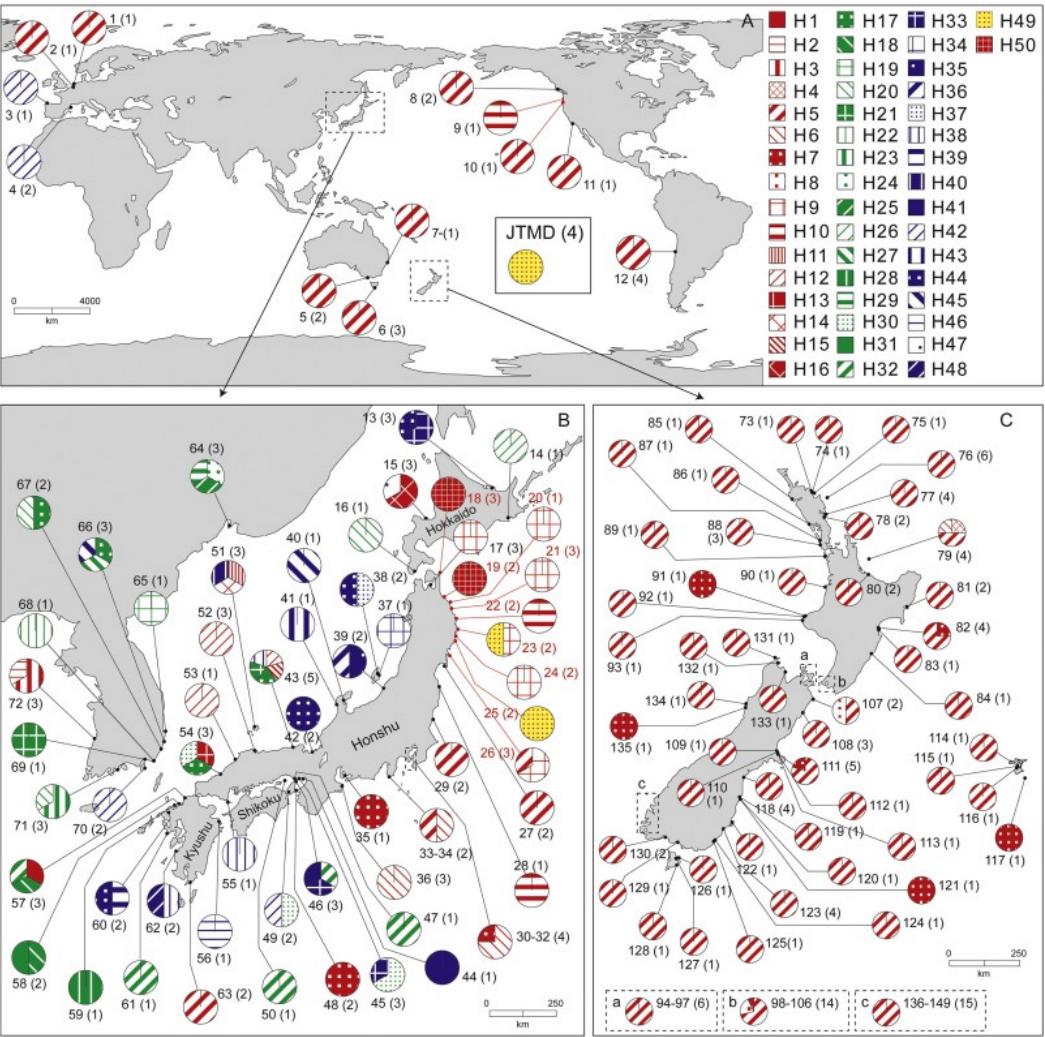
pred	actual
hok	15
hon	0
tok	0
sea	0
kag	0
nonSource	0



Ulva pertusa
Chloroplast and mtDNA data



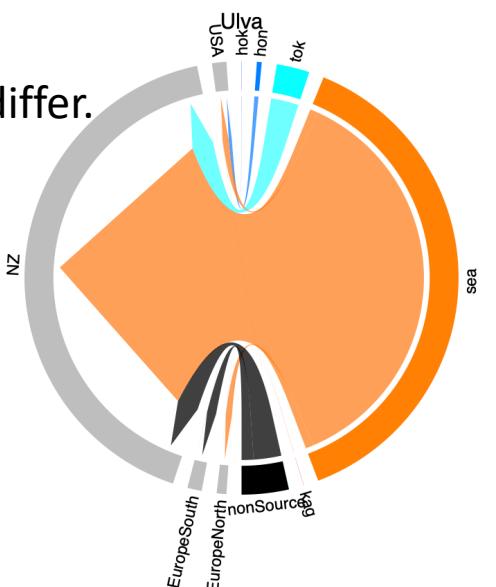
Original data –
Hanyuda et al.
2018



ML output = cross validation accuracy 48.4% →

LOW. this may explain why NZ in data and ML differ.

	actual			
pred	EuropeNorth	EuropeSouth	NZ	USA
hok	0	0	0	0
hon	0	0	0	1
tok	0	0	7	0
sea	2	0	105	2
kag	0	0	0	0
nonSource	0	3	7	0



Undaria pinnatifida
mtDNA data

Original data –
Uwai et al 2006

ML output = cross validation accuracy 76.4%

Cases with no Miyagi

