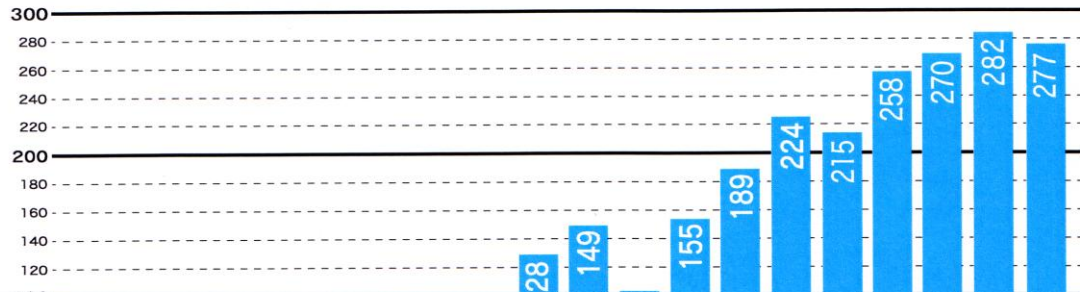


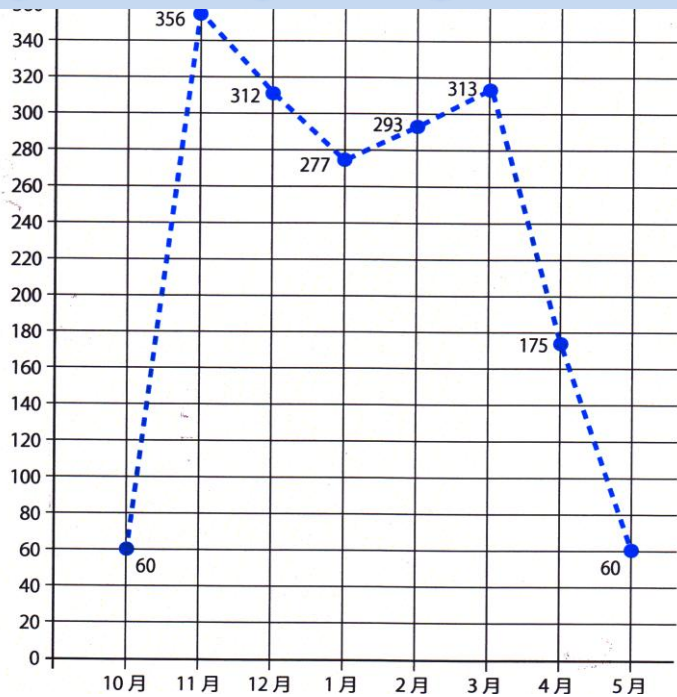
Population survey by Japan BFS Network

▼日本の総羽数の変化(香港バードウォッチングソサエティの資料より)



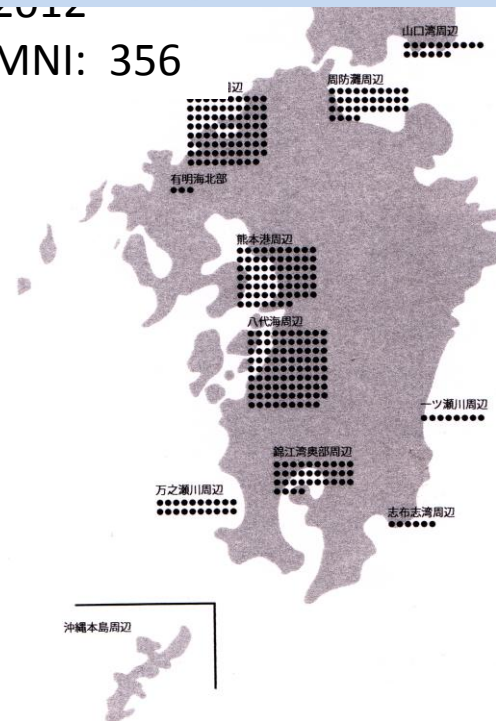
More than 200 bird-watchers join to the BFS monitoring survey.

To find new feeding sites, collaborating with local Wildbird members



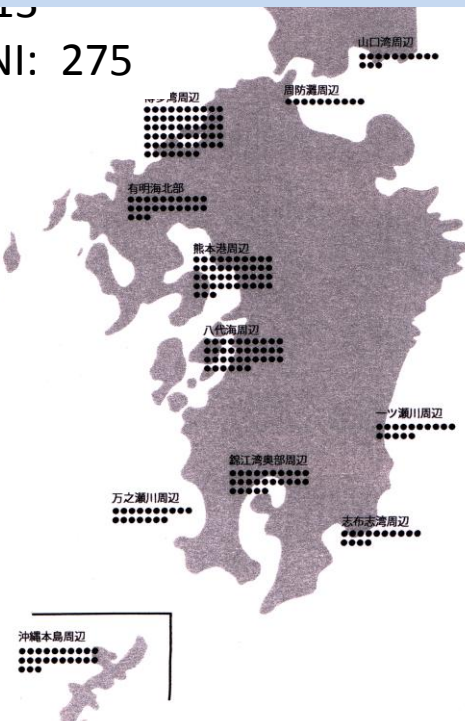
2012

MNI: 356



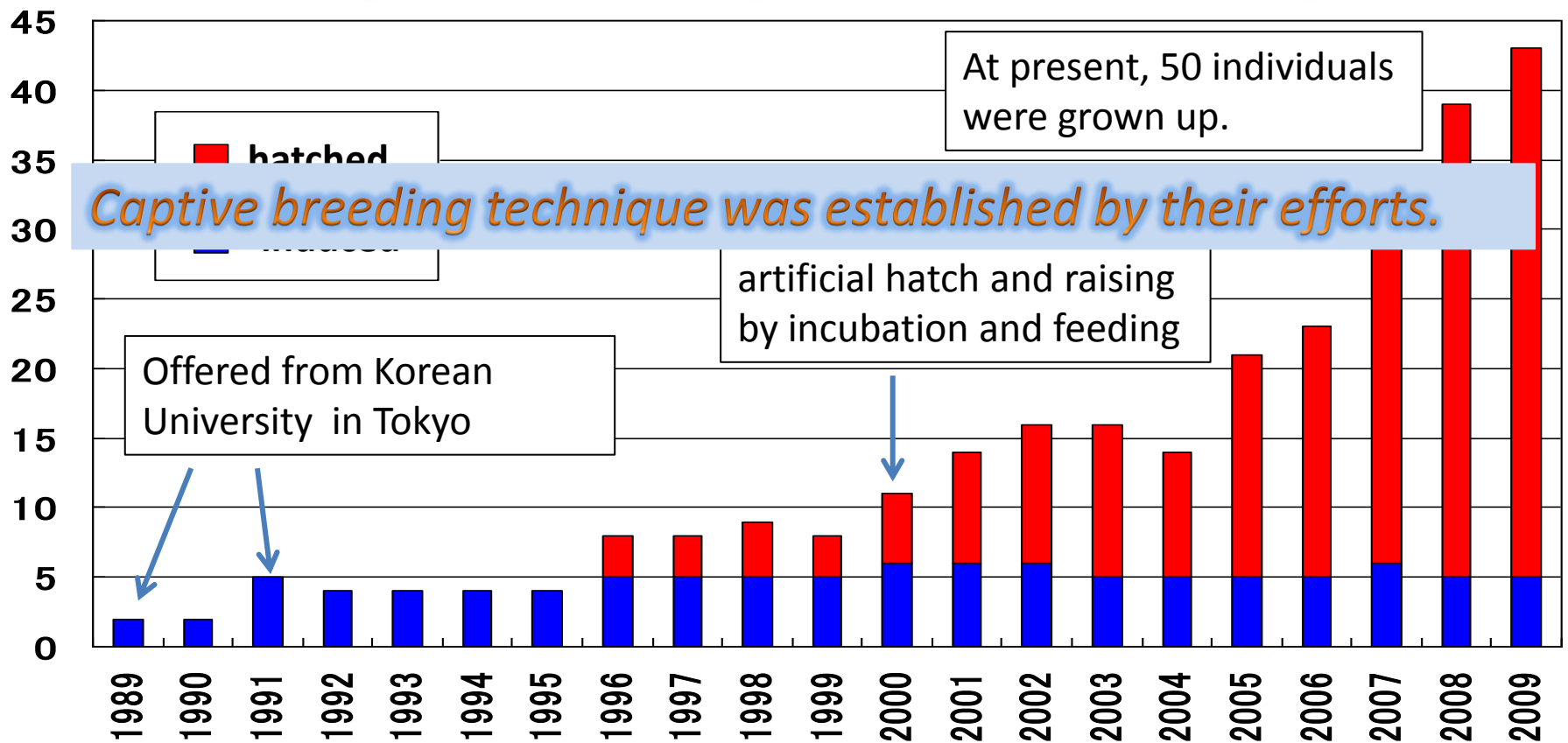
2013

MNI: 275



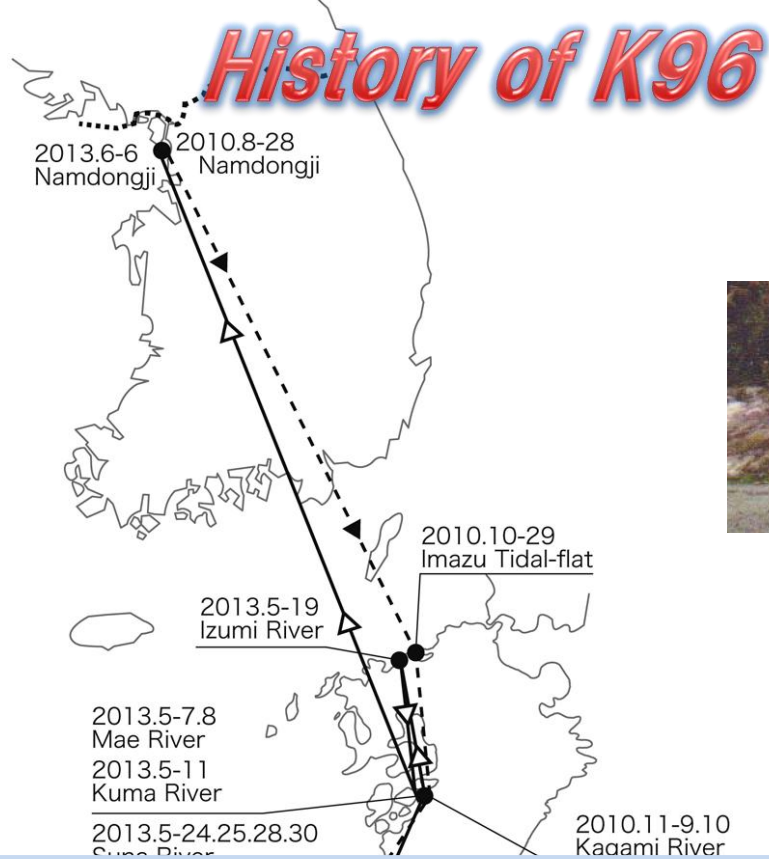


Captive Breeding at Tama Zoo, Tokyo





2010 Okinawa



2010 Okinawa

Rescue efforts save the life of K96 at Okinawa.

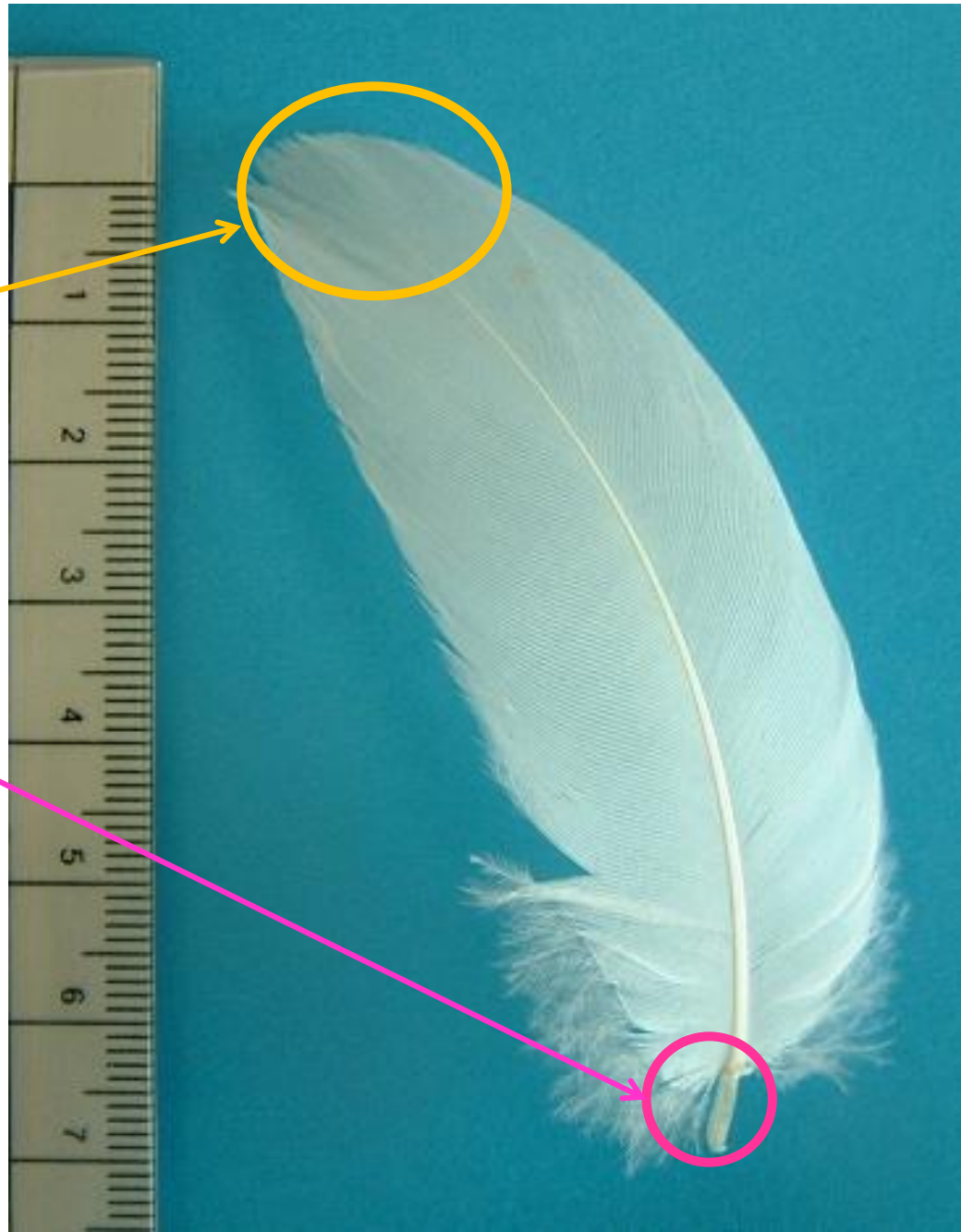


2013 Namdongi

*Using fallen
feathers,*

*Stable Isotope
Analysis*

*Mitochondrial DNA
Analysis*



Species identification by mitochondrial cyt- b region

BFS

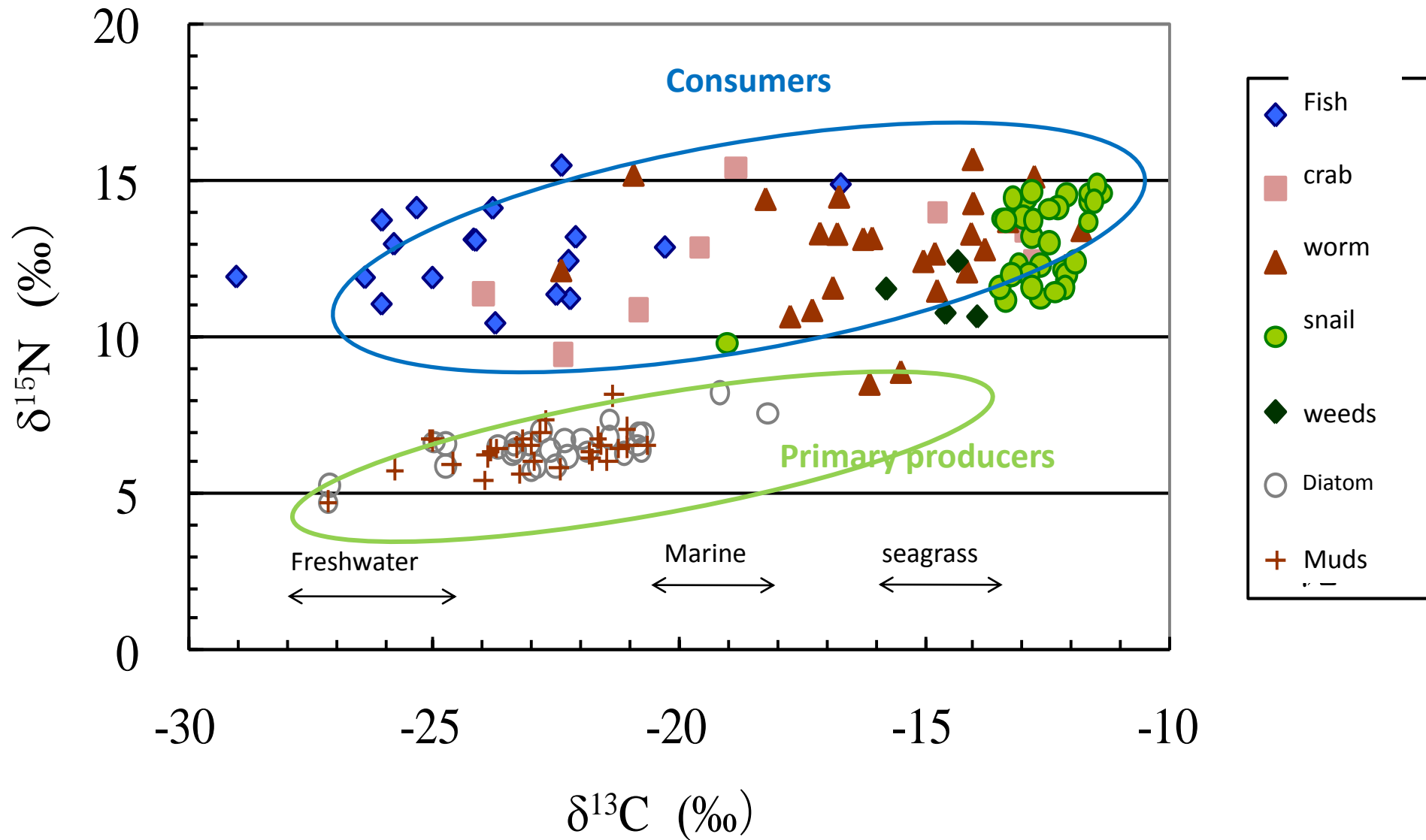
07kh42		ACCACCTATTGCTTAACCCATATACTCTCCTCCAAACCCTCCCACACCAAGCCCACACT
08kh01		.....A.....
07kh08		.....
07kh09		.....
07kh12		.....
07kh13		.....
07kh15		.....A.....
07kh16		.....
07kh17		.....A.....
07kh18		.....
07kh19		.....A.....
07kh21	Egret	...C.TC.CA...CT.T....CT...C..C.TCTC...CA.G....C.....CA.
07kh22		.....A.....
07kh25		.....A.....
07kh28	Anas platyrhynchos	CAACA.C.CCATCCC...CCC.C...C..CG...CT..C..G.T.TT...A.AG.TT.
07kh29		.....A.....
Platalea_leucorodia		.....C.....C.....C.....T.....A.....
Threskiornis_spinicollis		...C..C.CCAT.C...TT.....TT....C.T..TT.....AT.T...A
Egretta_eulophotes (DDBJ)		...C.TC.CA...CT.T..G..CT...C..C.TCCT...CA.A....C.....CA.
Ardea_cinerea (DDBJ)		...C..C.CC..CC.C....CTCTTC.C.TC..CC...TC.G.T.....T.G.TCAC
Ciconia_boyciana (DDBJ)		...T..CGCA..CCC.T...C.C....C..CTT..CT....A.....T..C.C.C
Anas_crecca (DDBJ)		CAATA.C.CCA.CCC...CCC.C...C..CG...CT..C..G.TG.T.G.A.AG.TTC

Samples

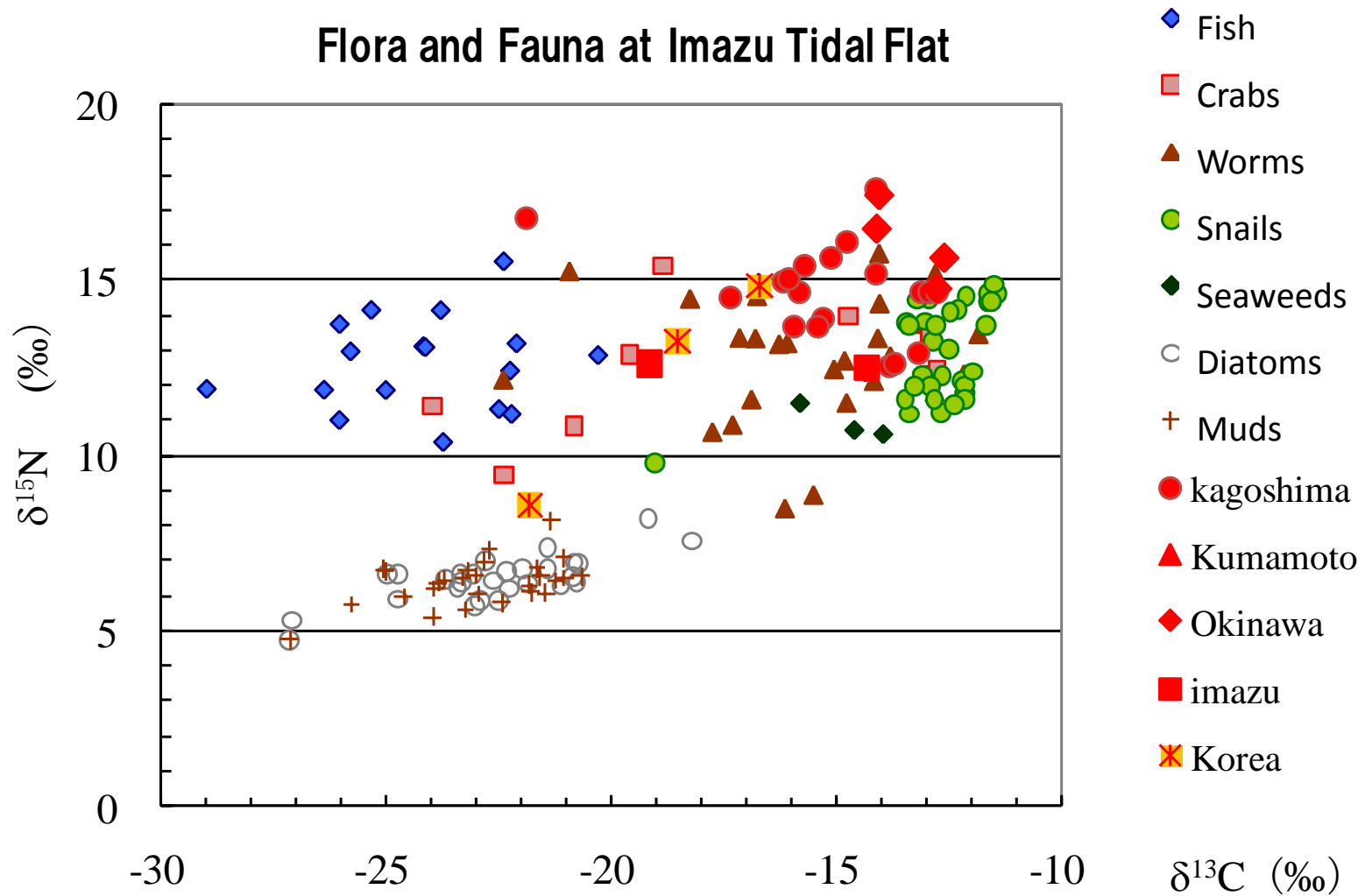
References

A Model of Isotope Analysis

Fauna and Flora at the Imazu Tidal Flats



BFS feathers

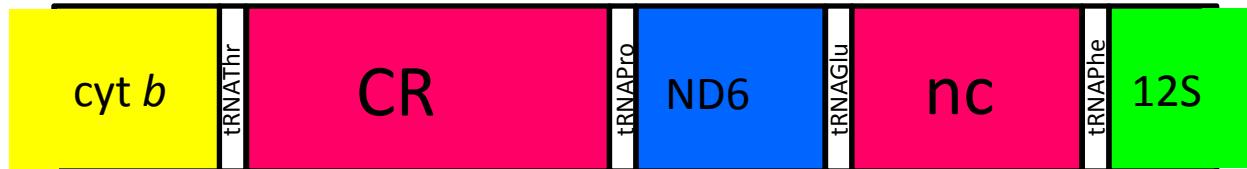


Structure Analysis of mitochondrial DNA

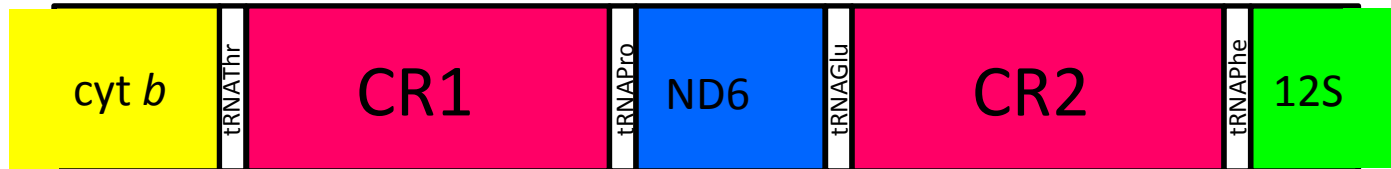
revealed tandem repeats

between cytochrome b and control regions

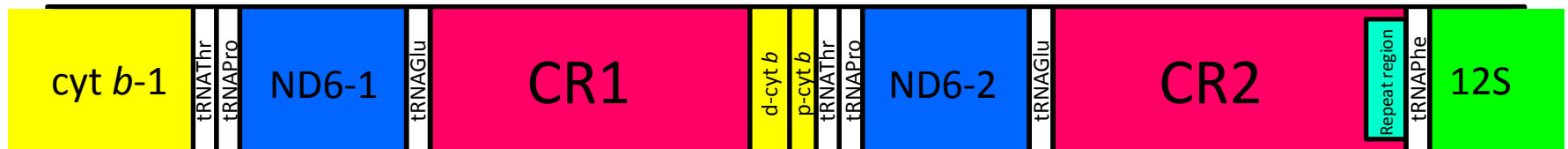
Eagle (Mindell *et al.* 1998)



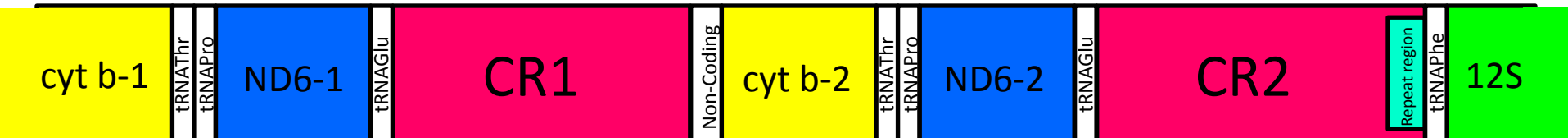
Amazona (Eberhard *et al.* 2001)



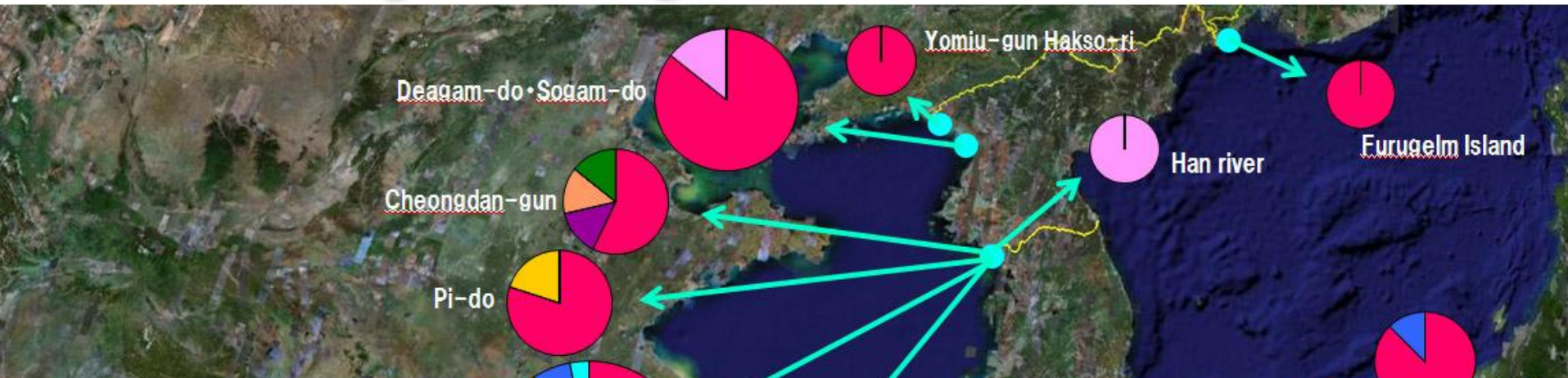
Thalassarche (Abbott *et al.* 2005)



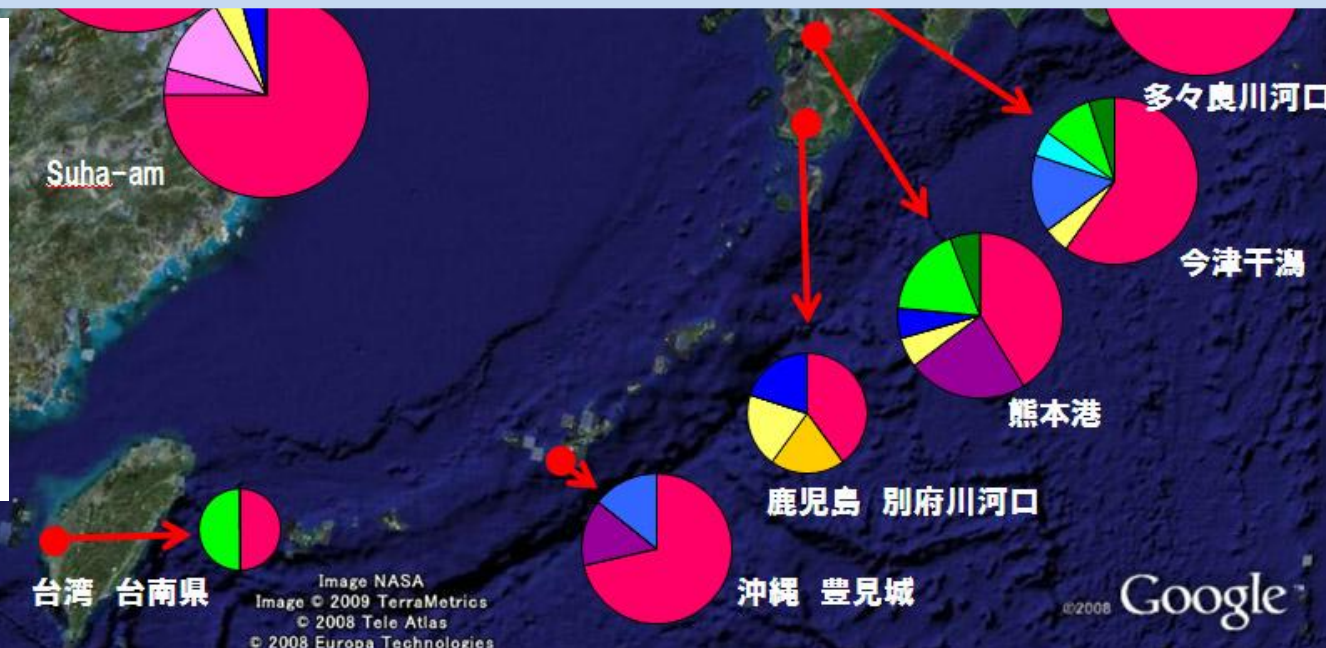
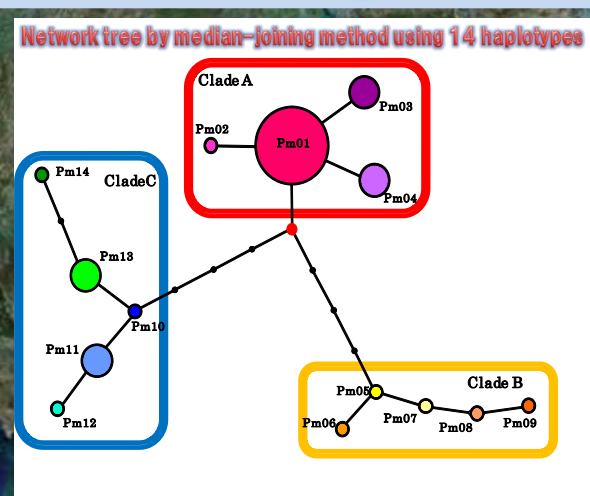
Black-faced Spoonbill (Cho *et al.* 2010)



mtDNA analysis using fallen feathers



Because of the dominant haplotype, genetic diversity of BFS is not so high as cranes.



Cho et al. 2009

563 マイル

Image NASA
Image © 2009 TerraMetrics
© 2008 Tele Atlas
© 2008 Europa Technologies

©2008 Google

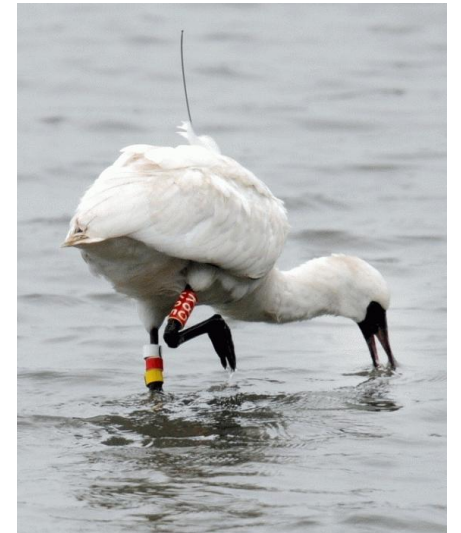
Solar-GPS satellite tracking



GCOEアジア保全生態学 九州大学・東京大学
Education, Research & Conservation

<https://sites.google.com/a/conservationecology.asia/main/coreProjects/tracking/bfsb2011>

•Satellite tracking for Black-faced Spoonbill project 2009-2013



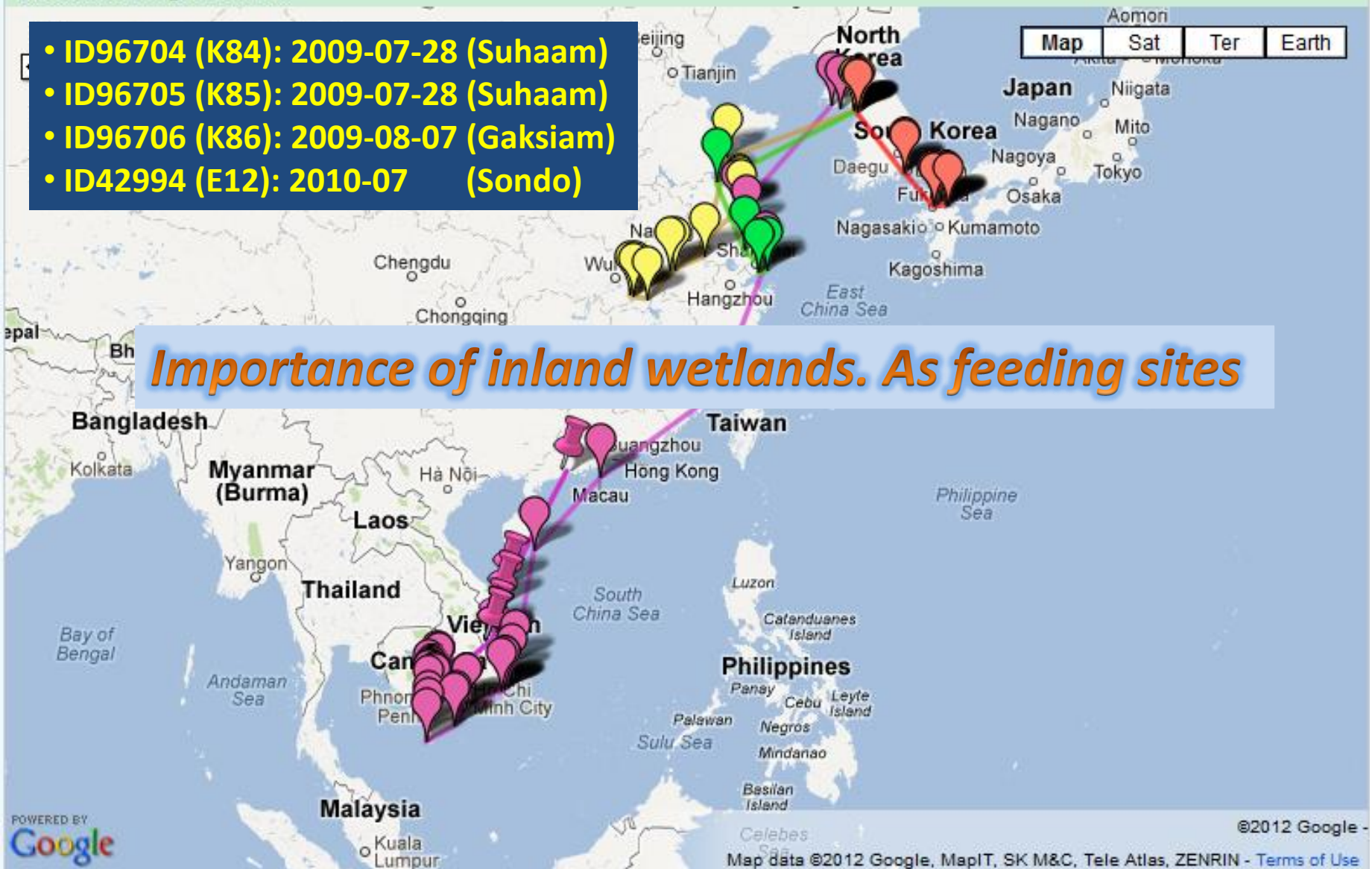
Copyright: T. Okabe
(Nishinippon Shinbun)

4 individuals attached during 2009& 2010

Satellite tracking of BFB all

- ID96704 (K84): 2009-07-28 (Suhaam)
- ID96705 (K85): 2009-07-28 (Suhaam)
- ID96706 (K86): 2009-08-07 (Gaksiam)
- ID42994 (E12): 2010-07 (Sondo)

Importance of inland wetlands. As feeding sites



5 individuals attached during 20011& 2013

Year 2011

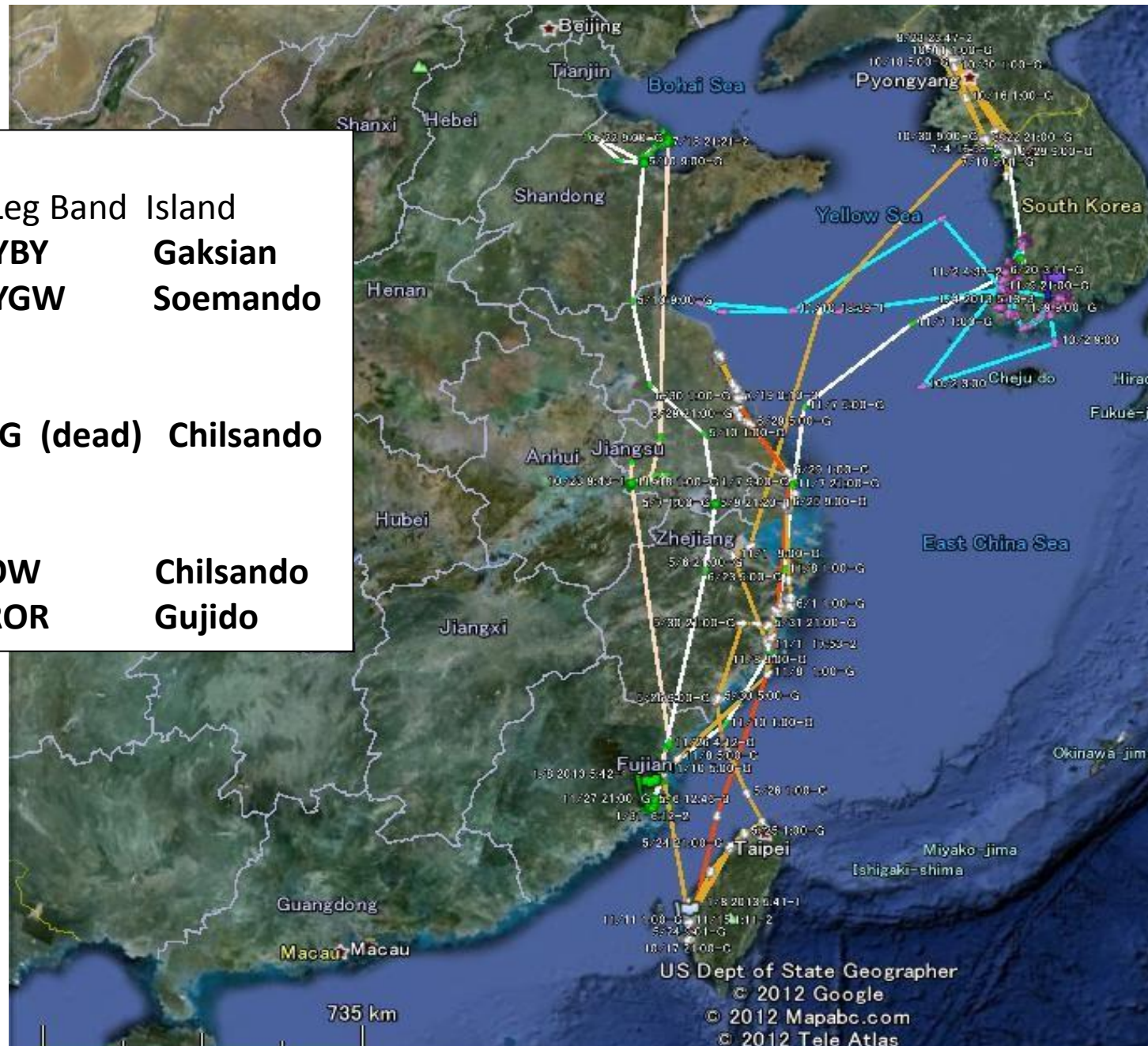
Argos ID	Indiv. No.	Leg Band	Island
67938	E37	YBY	Gaksian
67939	E48	YGW	Soemando

Year 2012

114528	E75	GYG (dead)	Chilsando
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Year 2013

114528	S08	OW	Chilsando
130144	S21	ROR	Gujido

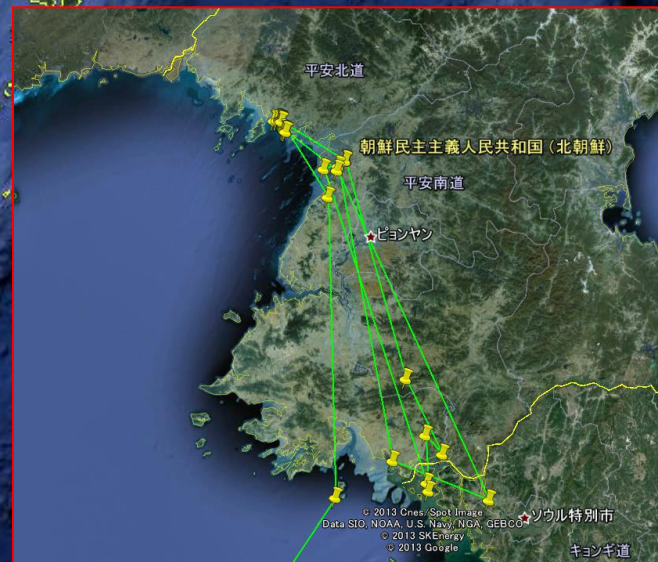
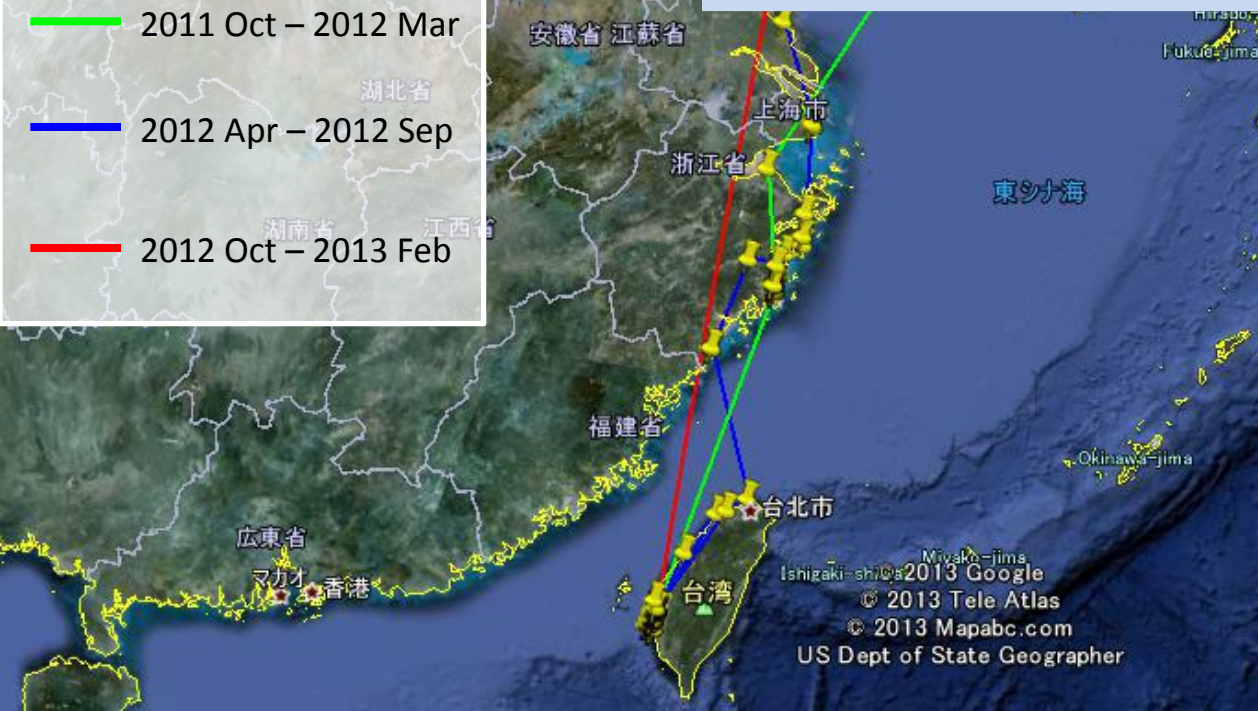


E37 (ID 67938)

Gaksian from 1st July, 2011



BFS can cross the border to feed



BFS observed in North Korea



Center for Biodiversity, National Institute of Science Academy, D.P.R. Korea,

Image © 2013 Terr

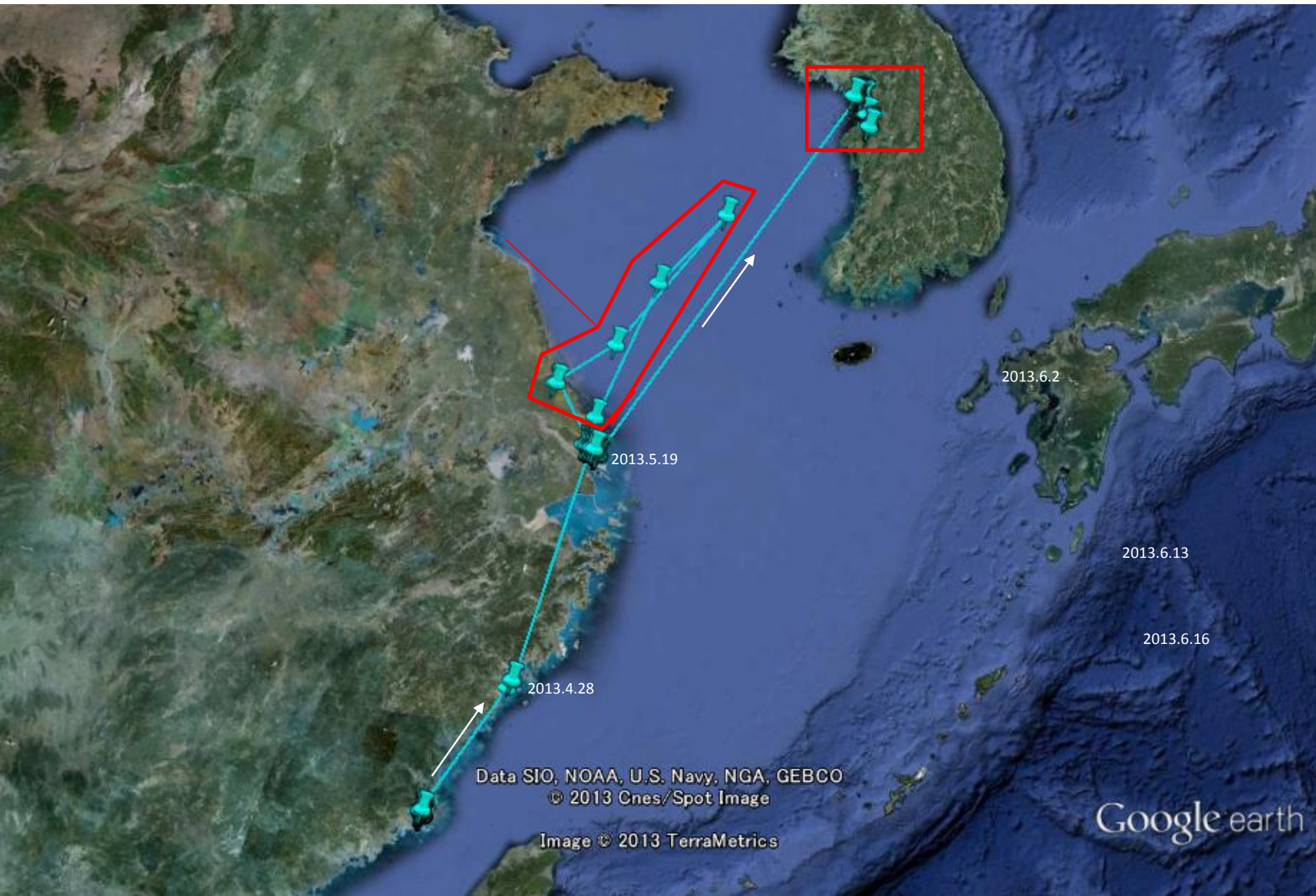
Image © 2013 Digi

© 2013 Cnes/Sa

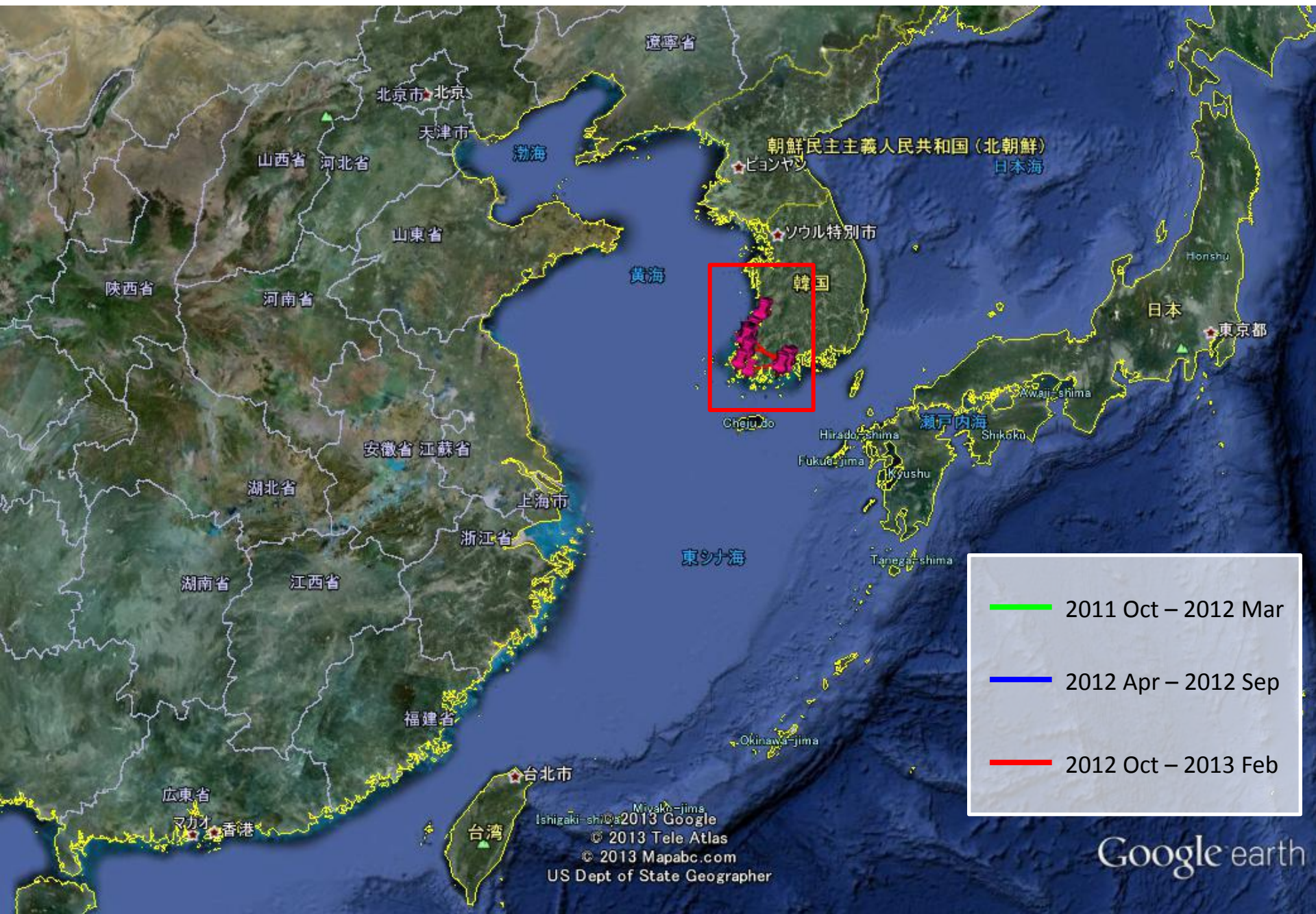
Photos by Cho Hyong-Ju, Kyushu University



E48 📌 returned to his breeding site in 2013



E75 (ID 67939)



2011 Oct – 2012 Mar

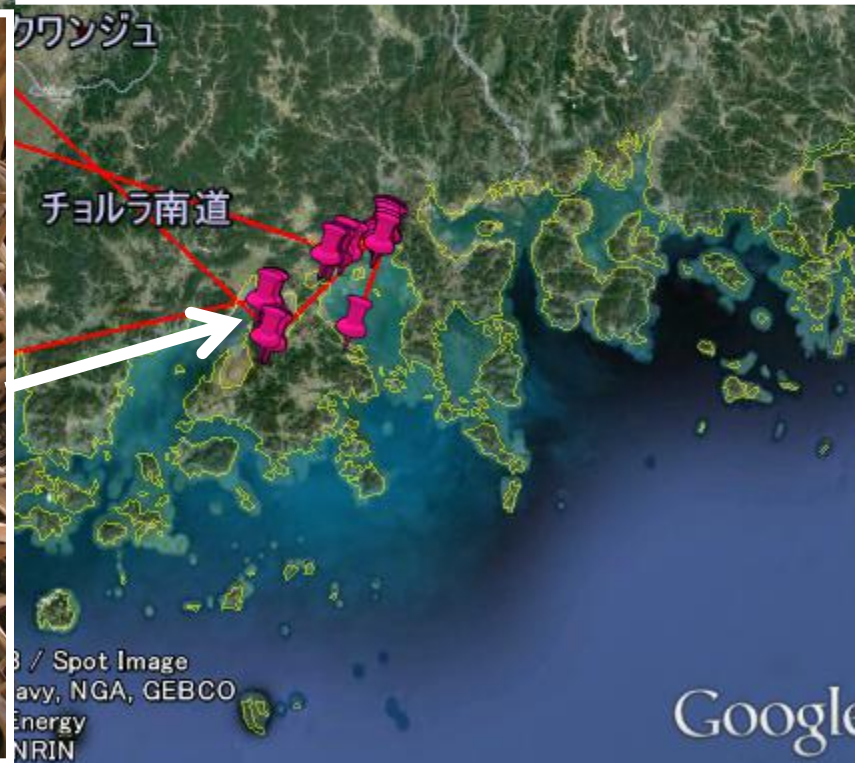
2012 Apr – 2012 Sep

2012 Oct – 2013 Feb

Chilsan iland



carcass



Spot Image
Navy, NGA, GEBCO
Energy
NRIN

Google

4 individuals are active



Year 2011

Argos ID	Indiv. No.	Leg Band	Island
67938	E37	YBY	Gaksian
67939	E48	YGW	Soemando

Year 2013

114528	S08	OW	Chilsando
130144	S21	ROR	Gujido

**Cheers !
Bon voyage !**



**S21 attached on July, 2013
at Gujido, Yeonpyeong do**

