

# The influence of ocean garbage on “Old Four Legs”, the coelacanth

Iwata, M., Shahailatua, A., Hukom, DF., Makatipu, PC., Presiwady, T., Masengi, KW., Mandagi, IF., Pangalila, F., Abe, Y.



# Coelacanth, Living Fossil

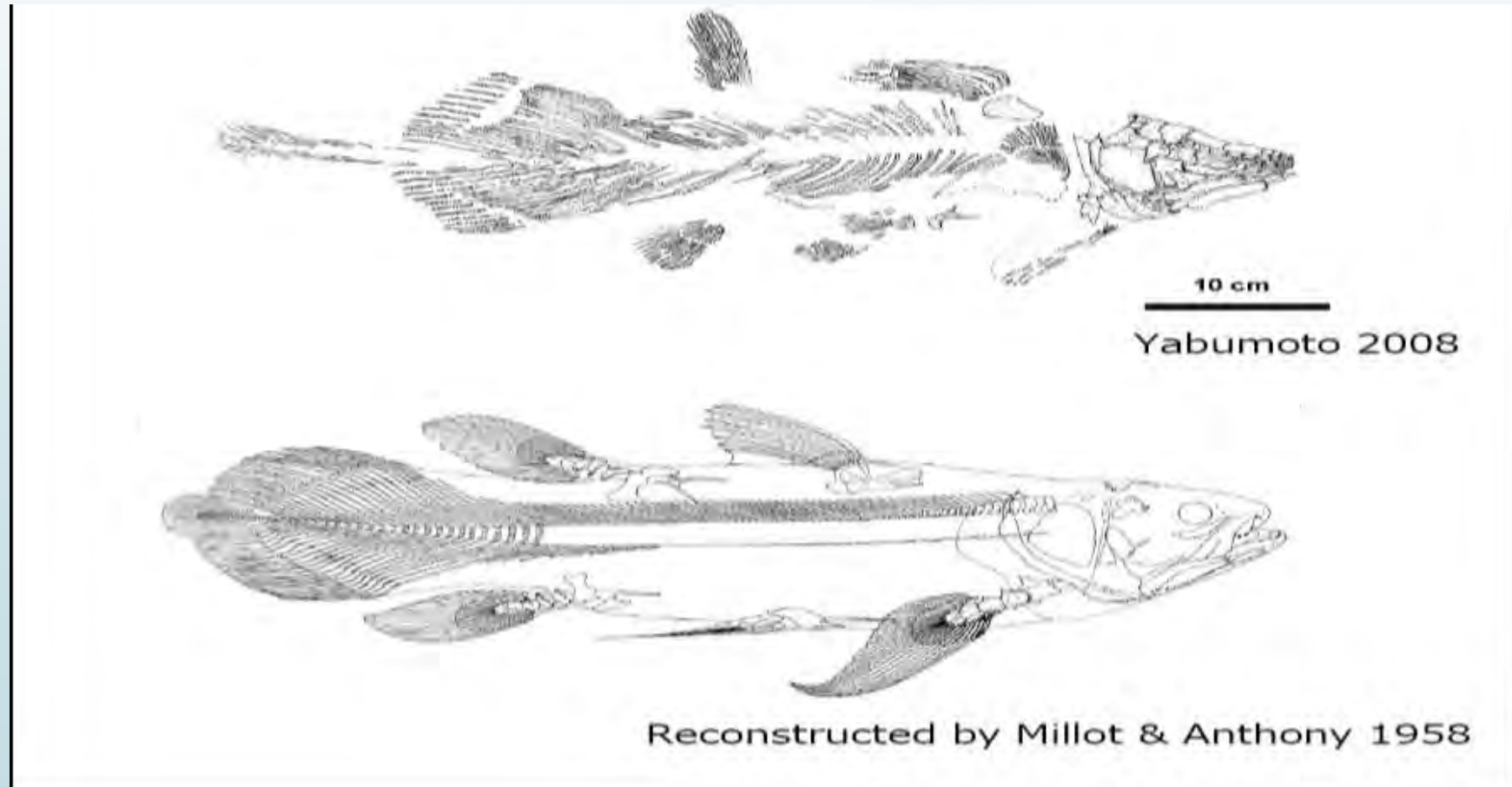
Fossil Record of coelacanth group:  
400 Million Years ago - 80 Mya.



Yabumoto 2008

# Coelacanth, Living Fossil

Coelacanth has not changed and survived until NOW.



## Recent Coelacanth, *Latimeria*



African coelacanth  
*Latimeria chalumnae*



Indonesian coelacanth  
*Latimeria menadoensis*

# Findings of Coelacanth

African coelacanth  
*Latimeria chalumnae*

Indonesian coelacanth  
*Latimeria menadoensis*

Kenya

Indonesia

Tanzania

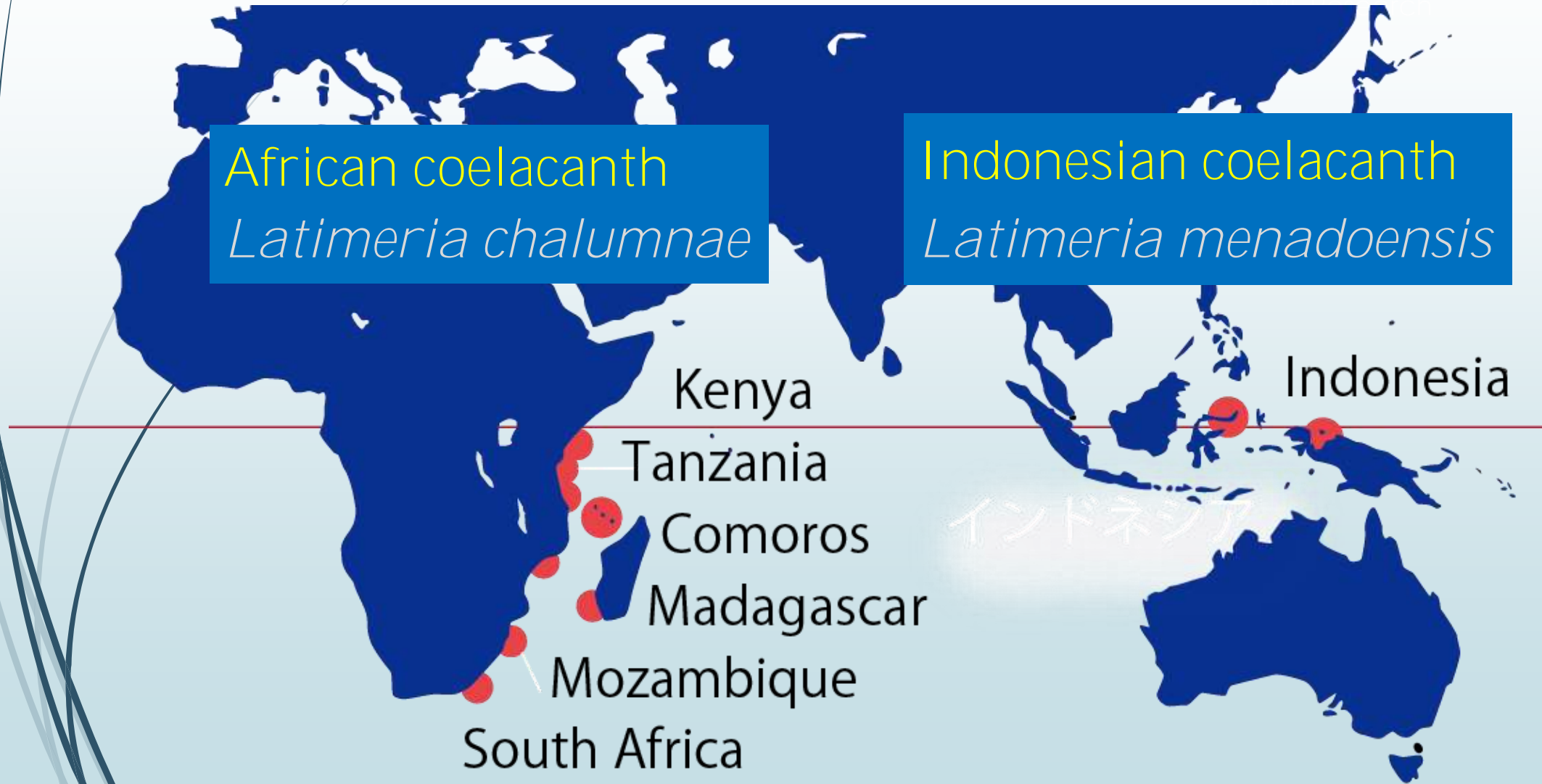
Comoros

Madagascar

Mozambique

South Africa

インドネシア





# Coelacanth Habitat



▼  
30°C



0 m  
15 m

100 m  
130 m



16°C

180 m

230 m



# Captured records of Indonesian coelacanth

No.	CCC	Date	SEX	TL	BW
1	174	Sep 18, 1997	UN	UN	UN
2	175	Jul 30, 1988	F	124 cm	29.2 kg
3	215	May 19, 2007	F	131 cm	51 kg
4	225	Nov 25, 2008	M	110 cm	20 kg
5	254	Sep 16, 2009	M	116 cm	27 kg
6	287	Jul 20, 2011	M	112 cm	13.1 kg
7	<b>299</b>	<b>Nov 5, 2014</b>	<b>F</b>	<b>130 cm</b>	<b>37.8 kg</b>

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# Amurang Specimen

Amurang Bay.  
North Sulawesi





# Amurang Specimen

Date: 21, Jul. 2011



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Method: Hand line fishing

Bait: 15cm cut meet of Malalungis (A kind of Horse Mackerel)



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Date: 21, Jul. 2011

Method: Hand line fishing

Bait: 15cm cut meet of Malalungis (A kind of Horse Mackerel)

The fish was died 1.5 hours later on the boat after catch



# Amurang Specimen

Date: 11 Aug. 2011

Stored at Amurang Fisheries  
Office

Condition: Freezing



# Amurang Specimen

Measuring and Preserving 12 May. 2012

Total Length: 112cm

Body height: 24cm

Body Weight: 13.1kg (21 JUL 2011)

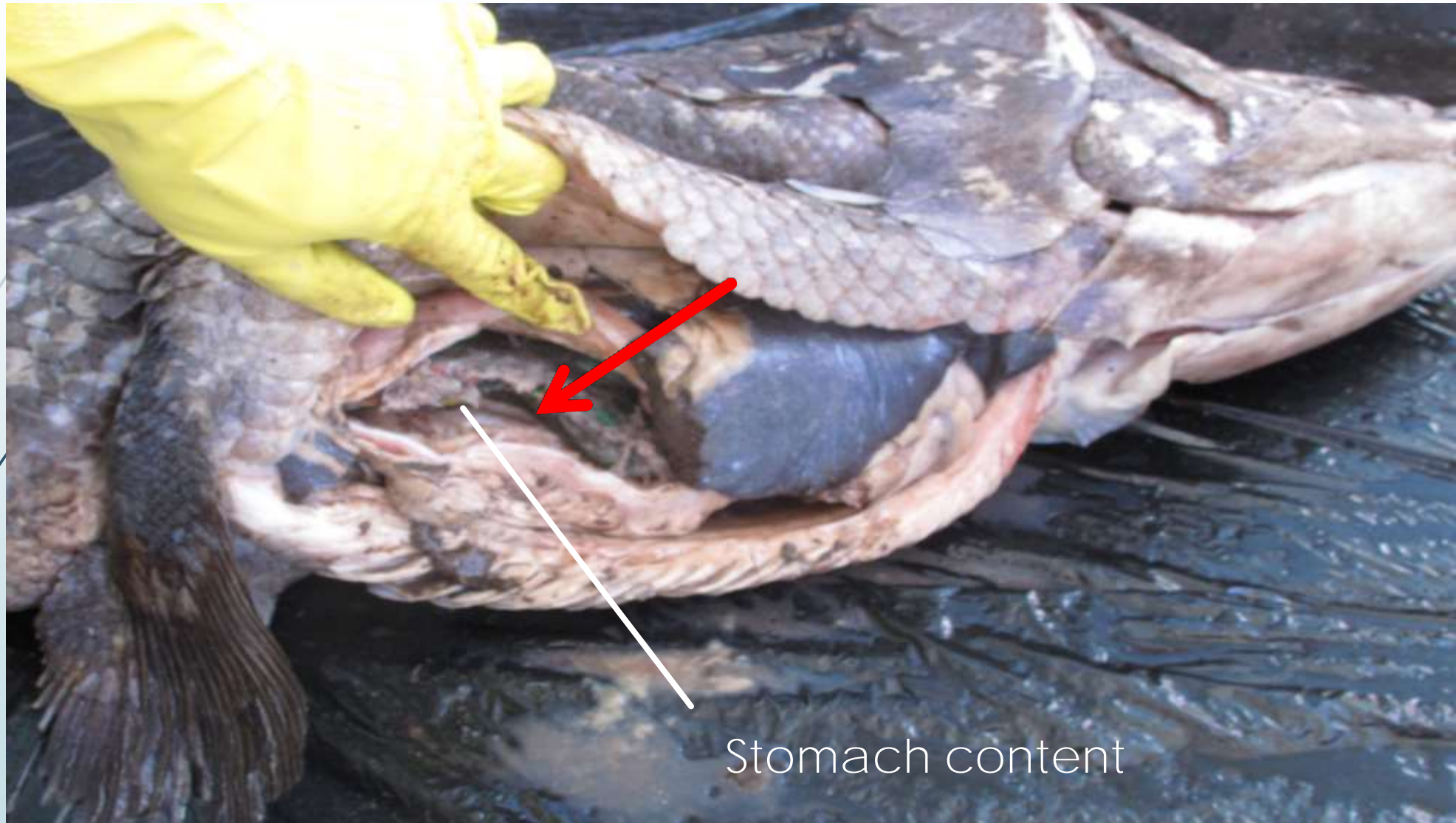




# Garbage in the stomach



# Garbage in the stomach



Stomach content





# Garbage in the stomach





# Garbage in the stomach



# Prey of coelacanth



Broad alfonsino  
*Beryx decaductylus*  
34.5 cm



Deepsea witch-eel  
*Ilyophis brunneus*,  
49 cm



Swell shark  
*Cephaloscyllium*  
*suffluns*  
48 cm

Reconstructed by Uyeno and Tatsumi 1991

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# Comparison of the shapes



112 cm / 13.1 kg



110 cm / 20 kg

# Comparison of the shapes



112 cm / 13.1 kg



110 cm / 20 kg



# Marine Creatures with garbage



# Condition about 200m in the Manado Bay

29. JUN. 2007





# Environment of water front











Thank you...