



2013 年南海鲸豚类调查问卷

Text S1: Fishermen survey questionnaire (Hainan)

(English version)

DATE: _____ LOCATION: _____ INTERVIEWER: _____

The Chinese Academy of Sciences is undertaking an opinion survey related to fishers' local ecological knowledge on cetacean species. The outcome of the survey will be published in a peer-reviewed journal but will remain anonymous.

Would you consent to participate in this study and answer questions related to this subject?

Yes No

A: FISHERY AND CETACEANS

1) How old are you? _____

Gender _____

Nationality _____

What is your education level?

University/College Senior mid school

Junior mid school Elementary school

Illiterate Other level (Please describe: _____)

2) You have engaged in fishing from _____ years old to _____ years old

3) Which months do you fish at sea each year? _____

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- 4) How long is your vessel? _____
- 5) Which fishing gears have you used recently? _____
1. Drift gillnets 2. Fixed gillnets
3. Trawls 4. Purse nets
5. Light-trapping 6. Electric-fishing
7. Hooking 8. Long-line
9. Stow nets 10. Bomb-fishing
11. Other fishing gears or methods (Please describe: _____)
- 6) Please identify your target fish species (A-V) with the help of photographs of commercial fishes in the South China Sea; please list and describe if you mainly catch other species such as crustaceans or cephalopods.
- A. *Engraulis* spp. (Anchoveta)
- B. *Pampus* spp. (Butterfish)
- C. *Pagrosomus* spp. (Sea bream)
- D. *Pseudosciaena* spp. (Croaker)
- E. *Trichiurus* spp. (Ribbonfish)
- F. *Etrumeus* spp. (Herring)
- G. *Muraenesox* spp. (Conger)
- H. *Argyrosomus* spp. (White croaker)
- I. *Nibea* spp. (Yellow croaker)
- J. *Nemipterus* spp. (Nemipterus)
- K. *Decapterus* spp. (Scad)
- L. *Scombermorus* spp. (Horse mackerel)
- M. *Thunnus* spp. (Tuna)
- N. *Trachurus* spp. (Mackerel)



- O. *Cynoglossidae* spp. (Tonguefish)
- P. *Collichthys* spp. (Croaker)
- Q. *Branchiostegus* spp. (Tilefish)
- R. *Sardinella* spp. (Sardine)
- S. *Mugil* spp. (Mullet)
- T. *Navodon* spp. (Filefish)
- U. *Epinephelus* spp. (Grouper)
- V. *Pneumatophorus* spp. (Chub mackerel)
- Other species (Please describe and list: _____)

7) How many days do you devote to fishing on average every year?

8) Where do you typically engage in fishing?

_____ (Please write down the grid numbers)

9) How have fishery resources changed during your fishing career?

a) Fishing catch

Increase Decrease Unchanged

b) Number of fishing vessels

Increase Decrease Unchanged

10) Recent incidental catch of cetaceans:

a) Which fishing gears or methods? _____

b) Which species? _____

c) How many? _____

d) Where? _____ (Write down the grid numbers)

e) When? _____

11) If you have incidentally caught a cetacean, please describe its status:

Dead Alive but injured Alive and not injured



Other status (Please describe: _____)

12) Have you ever seen or heard that cetaceans were hit by propellers of fishing vessels?

Ever seen Ever heard

Never seen Never heard

If you have you ever seen or heard:

a) When did it happen? _____

b) Which species? _____

c) Where? _____ (Please write down the grid numbers)

13) Relationship between fishing gears and cetaceans:

a) Which fishing gear is able to catch cetaceans most easily? _____

b) How many cetaceans do you know this gear has caught? _____

c) Which other gears can also catch cetaceans? _____

B: DISTRIBUTION AND QUANTITY OF DOLPHINS

(Adult length <4m, typically without column of spray)

14) Please identify and list all dolphin species you have seen
(Identify species with the help of the illustrated handbook, without any prompting or influence from colleagues present)

a) Which dolphin species have you seen most frequently? _____

b) Which dolphin species have you seen in the greatest numbers?

15) During which months is it easiest to see dolphins in your fishing area?
During which months is it more difficult to see dolphins in your fishing area?

16) Where do you see dolphins most frequently?
_____ (Please write down the grid numbers)

17) About the largest size of dolphin group you have ever seen.

a) When? _____

b) Where? _____ (Please write down the grid numbers)



18) How has the amount of dolphins changed during your fishing career?

Increase Decrease Unchanged Do not know

19) About your recent sighting(s) of stranded dolphin(s):

- a) Which species? _____
- b) How many? _____
- c) When? _____
- d) Where? _____ (Please write down the grid numbers)

20) Have you ever seen Indo-Pacific humpback dolphins?

Yes No

- a) When? _____
- b) Where? _____ (Please write down the grid numbers)
- c) How many? _____

21) Have you ever seen finless porpoises?

Yes No

- a) When? _____
- b) Where? _____ (Please write down the grid numbers)
- c) How many? _____

C: DISTRIBUTION AND QUANTITY OF WHALES
(Adult length >4m, with recognizable spray column)

22) Please identify and list all whale species you have seen
(Identify species with the help of the illustrated handbook, without any prompting or influence from colleagues present)

23) Which whale species have you seen most frequently? _____

24) Describe recent sightings of whales at sea (not including stranded cetaceans):

- a) Which species? _____
- b) When? _____



c) Where? _____ (Please write down the grid numbers)

25) About the largest group size of whales you have ever seen?

a) Which species? _____

b) How many? _____

c) When? _____

c) Where? _____ (Please write down the grid numbers)

26) Have you ever seen or heard of stranded whale(s): Yes No

a) Which species? _____

b) How many? _____

c) When? _____

d) Where? _____ (Please write down the grid numbers)

27) How has the number of whales changed during your fishing career?

Increase Decrease No change Not sure

D: PERCEPTIONS OF CETACEANS AND FISHERY

28) Average family income per month:

<2000 RMB

2000-4000 RMB

4000-6000 RMB

6000-8000 RMB

8000-10000 RMB

>10000 RMB

29) Do you think fishing is a good profession? Yes No

Do you hope that your children work as fishers? Yes No

30) How often do you talk about cetaceans with other fishers?

Frequently

Sometimes

Occasionally

Never

31) What topics do you discuss when you talk about cetaceans?

Sighting cetaceans at sea

Cetaceans hurt by vessels or nets



Too many fish eaten by cetaceans Stranding events

Other topics (Describe: _____)

32) Have you ever eaten dolphin or whale meat? Yes No

When have you recently eaten it? _____

33) Have you ever sold cetaceans? Yes No

a) Dead Alive

b) How much? _____

c) When? _____

d) Purposes of the buyer: _____

34) Do you think cetaceans play an important role in the marine ecosystem?

Yes No Not sure

35) Do you think cetaceans should be protected?

Yes No Not sure

36) Will fishery resources increase cetaceans are removed?

Yes No Not sure

37) Why have marine fishery resources decreased in your opinion?

Increase of advanced fishing methods and gears

Increased number of marine fishers

Fishery resources consumed by cetaceans

Increasing water pollution

Other reasons (Please describe: _____)



38) Why have cetacean populations decreased?

- Reduction of food resources due to overfishing
- Increased collision risk from increasing vessel traffic
- Increased water pollution
- Other reasons (Please describe: _____)

39) How do you deal with stranded cetaceans?

- Free Sell Eat
- Inform local fisheries administration Ignore
- Other choices (Please describe: _____)

40) How do you deal with entangled cetaceans?

- Free alive Discard dead Sell
- Inform local fisheries administration Eat
- Other choices (Please describe: _____)

41) Do you think cetaceans are national protected animals in China?

- Yes No Not sure

42) Do you think that hunting or selling cetaceans is illegal?

- Yes No Not sure

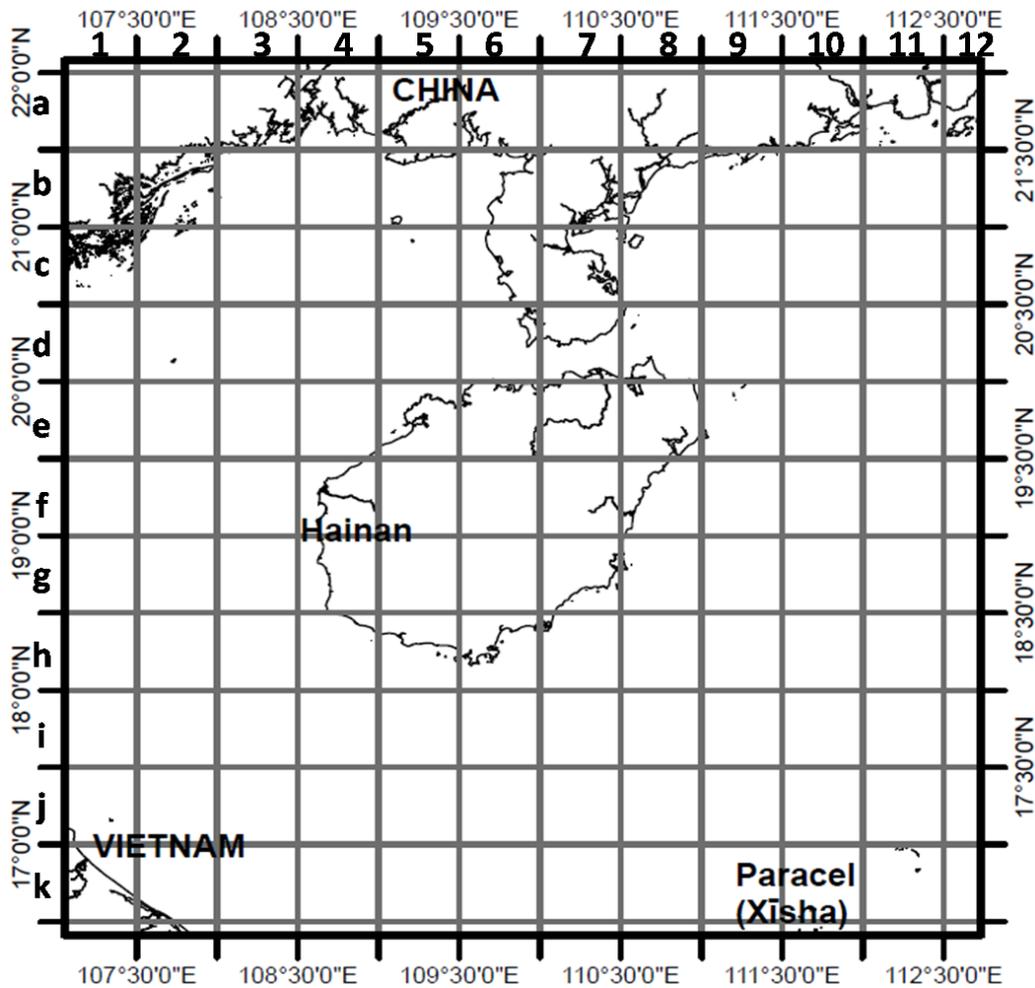


Figure S1 Grid map of Hainan and adjacent waters

- 1). Please write down grid numbers according to the format “Letter + Number” (e.g., b4).
- 2). Please record names or geographic locations on the map of other areas in the South China Sea that you have mentioned (e.g., Nansha, Xisha).

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