

Towards an ecosystem approach for understanding public values concerning marine biodiversity loss

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This survey is part of a scientific research project investigating people's views on Marine Biodiversity conducted jointly by the University of the Azores, the University of Wales and the University of Gdansk. The answers are anonymous and confidential and only aggregated data will be used for the project. Your cooperation in answering these questions is greatly appreciated. If you are interested to know more about this project you can contact the responsible researcher (Adriana Ressurreição) by the following e-mail: aressurreicao@uac.pt or by telephone: 00351 292 200 411.

Inquiry number: _____
 Date: _____
 Case study area: _____

A) BIODIVERSITY CONCEPT

1) Are you a:

a) Resident		Answer question no. 2 and then go to question no. 7
b) Visitor		Answer question no. 2 and then proceed

2) From the definitions below which, in your opinion, gives an acceptable definition of **MARINE BIODIVERSITY**.

Biodiversity is...	
a) The variety of living forms, in the sea, ocean or coastal environment, at all levels and in all possible combinations; it includes ecosystem, species, and genetic diversity.	
b) A community of organisms, interacting with each other, plus the environment in which they live and react	
c) The number of different species in a given area of sea, ocean or coastal environment	
d) Don't know	

[PLEASE READ TO THE RESPONDENT THE RIGHT DEFINITION OF MARINE BIODIVERSITY (OPTION a)]

B) IF YOU ARE VISITING

3) Is this your first time in this region?

a) Yes	
b) No	

4) How many times have you visited this region in the past (ever)? _____

5) Please say whether any of the following had a major impact on your decision to visit this region? (choose all that apply)

	Factors
a) Business/work	
b) Visiting family/friends	
c) Abundance and diversity of marine life	
d) Weather conditions	
e) Aquatic activities (whale/dolphin watching, SCUBA diving, snorkelling, recreational fishing, sailing, surfing, spear fishing, etc.)	
f) Local landscape and natural features	
g) Hospitality and local gastronomy	
h) Peacefulness	
i) Other (please specify _____)	

6) How much did the marine biodiversity of the region influence your decision to come to this region?

a) Not at all	
b) Moderately	
c) Very much	
d) Don't know	

C) YOUR ATTITUDES TOWARDS THE CONSERVATION OF MARINE BIODIVERSITY

7) How would you describe your level of concern towards biodiversity conservation? (choose only one option)

a) Biodiversity conservation should be a priority for governments on a national and global level	
b) Biodiversity conservation is important but not a priority	
c) I don't regard the conservation of biodiversity as important	
d) Don't know	

8) Have you engaged in any of the following activities during the last year?

	Yes	No
a) Read or watched TV about environment conservation		
b) Recycled of household waste		
c) Subscribed to a magazine concerned with environment conservation		
d) Selected one product over another because it's more environmentally friendly		
e) Given money to, or raised money for charities focused on environment conservation (consider only pure donations)		
f) Actively campaigned about an environmental issue		
g) Membership of a environmental conservation group		

D) VALUATION OF MARINE BIODIVERSITY CONSERVATION

In the context of this study please consider MARINE BIODIVERSITY as the variety of all biological life in ocean, sea, and coastal environments. This life includes plants, animals, fungi, and micro-organisms, the genes they contain, and the ecosystems they live in. In this study we will use the number of species in a region as a measure of biodiversity.

In the Azores we know that there are:

[Please clearly define the borders of the case study area]

	Number of species at the current level
Invertebrates	1700
Fish	520
Sea mammals	24
Sea birds	56
Algae	368

And most of these species occur around Pico and Faial Islands.

9) Suppose the only way to prevent a loss of species living in the sea was to establish a neutral trust fund which could only be legally used for marine conservation of various types. Would you be willing to contribute in a once-only payment to such a conservation trust?

a) Yes		Answer question no. 11 and then proceed to no. 12 and so on
b) No		Answer question no. 10 and then to question no. 22

10) Could you please indicate, from the list below, the reason that best describes why you are not willing to pay for marine biodiversity conservation in this region (choose only one option).

a) I do not think I would receive sufficient benefit from any such payment	
b) I do not want to put a monetary value on protecting marine biodiversity	
c) Society has more important problems than protecting marine biodiversity	
d) It is the government's responsibility to preserve marine biodiversity	
e) You have not given me enough information to enable me to make a decision	
f) I object to the way the question is asked	
g) I can't afford to pay anything	
h) Other (please specify _____)	

11) Could you please indicate, from the list below, the reasons that explain why you are willing to pay for marine biodiversity conservation in this region (choose all that apply).

a) The marine biodiversity of this region provides leisure/recreation opportunities and food sources and is important for the local economy	
b) The marine biodiversity of this region is precious and it contributes to human well-being (water quality, erosion control, coastal protection, etc.)	
c) I enjoy knowing that marine biodiversity exists in this region even if I never see or use it	
d) The marine biodiversity of this region has the right to exist even if it does not appear important to human well-being today	
e) I enjoy knowing that the future generations will be able to enjoy marine biodiversity of this region	
f) Other (please specify _____)	

IF YES

Now we need to know what would be the maximum amount you would be willing to pay to ensure marine biodiversity conservation. First we are only going to consider fish and then all the marine species that live in the sea around these islands. When answering please do it as if you actually had to pay, and not considering payments as hypothetical. So you must remember that these payments would reduce the amount of money you would have to spend on other things.

12) **FIRST LET'S CONSIDER FISH** (show board) (Current: 520 sp)

What would be the maximum amount you would be willing to pay, in a once-only payment to such a conservation trust, in order to **AVOID A DECLINE IN THE NUMBER OF SPECIES OF FISH OF THIS REGION BY 10%** (about 52 sp)? _____.

13) What would be the maximum amount you would be willing to pay, in a once-only payment to such a conservation trust, in order to **AVOID A DECLINE IN THE NUMBER OF SPECIES OF FISH OF THIS REGION BY 25%** (about 130 sp)? _____.

14) What would be the maximum amount you would be willing to pay, in a once-only payment to such a conservation trust, in order to **AVOID A DECLINE IN THE NUMBER OF SPECIES OF FISH OF THIS REGION BY 50%** (about 260 sp)? _____.

So far we have only considered one individual group of marine organisms - fish. Now let's consider all marine species, which includes not only fish but many other groups of organisms and also recognizes that they interact - i.e. one species is food for another, etc. – Please note that you would not be expected to pay this money as well as the money you have already pledged for fish.

15) **NOW LET'S CONSIDER ALL MARINE SPECIES** (Show board)

What would be the maximum amount you would be willing to pay, in a once-only payment to such a conservation trust, in order to **AVOID A DECLINE IN THE NUMBER OF ALL SPECIES THAT LIVE IN THE SEA OF THIS REGION BY 10%**? _____.

16) What would be the maximum amount you would be willing to pay, in a once-only payment to such a conservation trust, in order to **AVOID A DECLINE IN THE NUMBER OF ALL SPECIES THAT LIVE IN THE SEA OF THIS REGION BY 25%**? _____.

17) What would be the maximum amount you would be willing to pay, in a once-only payment to such a conservation trust, in order to **AVOID A DECLINE IN THE NUMBER OF ALL SPECIES THAT LIVE IN THE SEA OF THIS REGION BY 50%**? _____.

E) SOCIO-DEMOGRAPHIC QUESTIONS

The following socio-demographic questions are required for data and results validation. In order to validate the present study your cooperation in answering these questions is greatly appreciated. Remember that the answers are anonymous and confidential.

18) Gender

a) Male	
b) Female	

19) Age

[18–24]	
[25–34]	
[35–44]	
[45–54]	
[55–64]	
[65–74]	
Over 75	

20) Where do you live?

Country	
Region/state/province	
City/town	

21) How many people constitute your household? _____.

22) What is your net monthly household income (after taxes)?

Less than 600€	
600–1200€	
1201–1800€	
1801–2400€	
2401–3600€	
3601–4800€	
4801–6000€	
More than 6000€	

23) What is the highest form of education you have reached?

a) Basic/Primary education	
b) Secondary education	
c) Higher education	
d) Postgraduate	

24) Professional occupation

a) Farmer	
b) Fisherman	
c) Employee: Public/government	
d) Employee: Private Sector	
e) Independent professional (self-employed)	
f) Student	
g) Retired	
h) Unemployed	
i) Homemaker	
j) Other (please specify)	

25) Do you have any comments on our survey questionnaire?

Thank you for your kind cooperation!