Bathing users perceptions and expectations of São Miguel (Azores)
Bathing Areas - a pilot study

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ABSTRACT


In Portugal there is no specific bathing policy taking into account the management for all basic aspects concerning bathing activity. This fact leads to the lack of information available in some of these aspects such as the use patterns of this areas and the perception of users regarding beach quality, landscape and social importance. It is urgent to cross boundaries between physical and social sciences into a holistic approach to BA management, integrating environmental, economic and social aspects. The determination of BA’s users perceptions and expectations is essential to establish beach quality standards and consequent classification, an essential tool to BA managers. In order to fulfill this lack of information a questionnaire survey, regarding several aspects of BA use, was undertaken in São Miguel-Azores (n=321) bathing areas. Although this is a preliminary work and the survey will continue to be made some important conclusions were made and presented in this paper. Most of bathing users in S.Miguel are not aware of the blue flag and it seem that the presence of this award it’s not an important factor to choose a bathing area. Although people recognize that the bathing areas are a public service and should be supported by public entities a significant proportion of users admit to pay this service if the money was used for its improvement.

ADITIONAL INDEX WORDS: public perception; beach management; islands; bathing areas

INTRODUCTION

In order to fulfill the requests in the Law the CZMP in the Azores adopted the classification for bathing areas. However the discussion remains as the different Plans for different islands used different classification systems. The fact that many bathing areas are not recognized by the actual classification systems had lead to a lack control on this areas and consequently to deterioration.

It is very important that the classification of areas with bathing use in the Azores can reflect the regional environmental, social and economical specificities, so that it can be used to improve the conservation and management initiatives and contribute to sustain this valuable resource.

One of the main objectives of perception studies is to understand the interactions between users and physical environments (HISHAM, 2004). This knowledge is essential to managers because they rely on a bottom-up approach to assess quality. This issue is important due to the fact that users perception changes, among other things, with personality and cultural background so it will change the concept of quality. The management policies regarding natural resources must be implemented in such a way as to take account of public opinion, concerns and expectations.

As multi-dimensional systems, Bathing Areas (BA) are interaction points between physical, environmental, social and economic systems resulting on high levels of conflict, reforcing the need of this bottom-up approach based on public perception.

Traditionally, physical and biological parameters were included in beach quality evaluation. However, the increasing importance of recreation and tourism requires new procedures for evaluating beach quality. It is therefore essential that social aspects such as beach occupancy and users perceptions are integrated into management plans to guarantee beach user satisfaction (ROCA, et al., 2008).

There is no knowledge of the use patterns in the Azores BA’s neither on the users perceptions and priorities so BA management in this Archipelago have been made based on theoretic premises and physical issues represented by beach processes erosion problems, protection measures. Despite the growing awareness of the need to collect data regarding all the socio-economic parameters related to BA use this is still a new field of work (e.g. WILLIAMS, 1992; WILLIAMS at al, 1993;
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Morgan et al., 1993, 1999; Leatherman, 1997; Roca et al., 2008).

Besides the new classification proposal, this pilot study aims to determine who use the bathing areas in S. Miguel-Azores, how users perceive quality, what they expect from it, how they use it, etc.

STUDY AREA

This pilot study was undertaken in 11 BA’s in São Miguel Island, the largest of the Azores archipelago (Figure 1). Due to its volcanic origin and recent geologic age, the Azores presents a very reduced number of sandy beaches on the coastal zone, and even none, in some of the nine islands. The bathing activities happen mainly on rocky, natural, semi-natural and artificial places.

METHODOLOGY

Beach Classification

A new classification was proposed, due to the need to find new definitions to classify the Azorean bathing areas taking care of regional specificities in a more effective way as well as to promote homogeneity among planning instruments. The classification was divided in: typologies and sub-typologies.

Typologies are defined according to the relation between bathing areas and human settlements (Urban; Semi-urban; Rural and Remote). Sub-typologies are defined according to the physical characteristics of bathing areas (Sandy beach; Pebble beach; Harbors and Bathing pools).

Questionnaire Design

A questionnaire was developed to assess the structure, priorities, concerns and activities of users and data analyzed in SPSS v.16 for Mac. The design of the questionnaire was based on Morgan et al. (1993) and Pereira et al. (2003). Pilot surveys (50) were carried out in the urban beach Milícias in Ponta Delgada and in classrooms in the Azores University. After the consequent changes in the questionnaire the final version was applied in 11 beaches of Sáo Miguel Island.

In order to validate as much answers as possible the direct approach of interviewing was adopted. A set of 19 questions about users perception, expectations and activities and 6 about personal data compose the questionnaire:

Personal Data:
- Age
- Sex
- Occupation
- What is the name of your hometown?
- Are you here on holiday or do you live locally?
- If on holiday, how long will you stay in the Azores and where are you staying?

Perception and activities (examples):
- Why are you here today?
- Can you mention what are the things you like/dislike most about this bathing area?
- Would you change anything in this bathing area? If yes what?
- Can you mention a bathing area that you did not like and say why?
- What’s your opinion regarding the number of people presently at this bathing area?
- Are you aware of the existence of beach rating / award schemes, sometimes represented in the form of a flag? What kind?
- Do you know the term ‘Blue Flag’? If yes, can you explain briefly what it implies?
- On a scale from ranging from 1 to 4, where 1 – Nothing, 2 – Little, 3 – Some, 4 – a lot, which are the most important features chosen by you when you visit a bathing area:
  - Size
  - Shape
  - Water Temperature
  - Water quality
  - Climatic conditions (wind, temperature, waves)
  - Scenery
  - Cleaning – litter
  - Seaweed
  - Safety
  - Infrastructures (toilets, showers, cafes, etc.)
  - Parking facilities
  - Natural conservation
  - Time to get here
  - An award flag
  - Noise - tranquility
  - Free of dog mess
  - Other

Do you have any interest in seeing a national bathing area, which ranks with the best/worst bathing areas? If ‘yes’, why?

RESULTS

Bathing Area Classification

In this paper we propose two approaches to classify bathing areas in insular territories: Typologies and sub-typologies, (Tables 1 and 2) according to the relation of bathing areas and human settlement and according to their physical characteristics.

Questionnaire Survey
Although this questionnaire survey is still in progress and the results are preliminary it was possible to determine some interesting tendencies in terms of structure of use and perception.

The structure of users in terms of age, sex and resident/tourist, is presented in Tables 3, 4 and 5. The user type is a 31-40 years old (42%) male (52.3%), resident in the Island (79.4%).

One of the questions of the survey was “Why did you choose this bathing area today?”. Proximity (42.23%) and social reasons (12.90%) were the most mentioned reasons (Figure 2).

In terms of users perceptions people were asked about if they would change anything in the bathing area 60.1% said “yes”. Then we ask them what they would change (Figure 3). The most mentioned issues on this question were those related with aesthetics, litter or pollution, more infrastructures, more parking, security and access to the sea.

Users were asked about the importance of a list of factors to choose a bathing area (not important, a little, some and a lot important) (Figure 4). Regarding Blue Flag, 81.9% of the users said that they are aware of this award although users still relate it almost exclusively with water quality (32.6%) or generalist answers such as “no pollution” (11.9%) or “good beach quality” (9.5%) (Figure 5).

Table 1: Typologies of Azorean bathing areas according to the relation to human settlement (adapted from Micallef et al, 2004)

<table>
<thead>
<tr>
<th>BA’s Typologies</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Urban Bathing Area</td>
<td>Urban bathing areas are sites within the immediate urban environment (city or village) and may therefore serve large communities with well-established public services e.g. banks, post-office, hotel accommodation, restaurants, fire department. In the proximity of urban bathing areas, one may often find commercial activities such as shopping malls, fishing/boating harbors and marinas. Stringent safety-related facilities and water quality monitoring would be expected at urban bathing areas.</td>
</tr>
<tr>
<td>Semi-urban Bathing Area</td>
<td>A semi-urban bathing area is one associated with an urban area (city or village) reflecting organized but small-scale community services (local shop/s, cafes/bars, b/b accommodation, toilets and litter bins) but located outside the main urban environment. This bathing area is characterized by it sparse housing pattern. Semi-urban bathing areas may be reached by public and private transport and would offer some basic safety-related facilities such as fixed safety equipment or safety related warning notices. Limited (in scope) water quality monitoring would be expected at such bathing sites.</td>
</tr>
<tr>
<td>Rural Bathing Areas</td>
<td>A bathing area located outside the urban environment, not accessible by public transport and having no public service facilities, however it is not unusual the existence of toilets, showers, litter bins and barbecue area. Housing at rural bathing areas may be limited in number (0 – 10), either of a temporary (summer) or permanent (year long) nature, but and having no community focal center such as local shops or cafes/bars. At such bathing areas, public service and safety related facilities and water quality monitoring are not expected.</td>
</tr>
<tr>
<td>Remote Bathing Areas</td>
<td>A bathing area largely defined by its difficult access, by foot (more than 200 meters) or boat and not supported by public transport. A remote bathing area would have no public service facilities, or restricted to showers, and very limited (0 – 3 if any) temporary summer housing. Safety related facilities and water quality monitoring are not expected on remote bathing areas.</td>
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Table 2: Sub-typologies of Azorean bathing areas according to physical characteristics

<table>
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<th>BA’s Typologies</th>
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<tr>
<td>Sandy beach</td>
<td>Bathing areas with slow slope, normally without vegetation, formed by lose sediments inferior than 4 mm. The degree of protection is variable and the bathing activity takes place in open sea.</td>
</tr>
<tr>
<td>Pebble beach</td>
<td>Bathing areas with slow slope, normally without vegetation, formed by lose sediments deposits with dimensions superior to 4mm. The degree of protection is variable and the water plan to bathing activity is in open sea.</td>
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<tr>
<td>Harbors</td>
<td>This bathing areas result of the harbors or marinas structures use for bathing activity, namely, sleepway slopes and alongside quays, as water access structures and sunbathing areas. Some of those areas were already been interventioned to improve the quality of bathing activity.</td>
</tr>
<tr>
<td>Pools</td>
<td>Under this designation, are included all bathing areas in which the water plan is enclosed. They can be natural structures, semi-natural or artificial. Sunbathing can be done in lava platforms, artificial platforms (wood, plastic or concret) and pebbles.</td>
</tr>
</tbody>
</table>
Public perception and expectations of Bathing Areas

Regarding the question “Would you pay to visit this bathing area if the money would be used to improve it?” 56.7% said, “yes”, from these 38.8% were willing to pay 1 euro and 30.2% more than 2 euro.

More than 45% of the users in this study take less than 10 minutes to reach the bathing area and 34.6% take 10 to 30 minutes.

DISCUSSION

Bathing Area Classification

Although the classification proposed need to be tested it is urgent to homogenize this definitions. In São Miguel Island, for example, two coastal zone plans were made (north and south shore) and both have different classifications for bathing areas.

We believe that this proposal is robust and, not only covers all the situations in the Azores archipelago, but it also can be applied in other insular territories with similar characteristics (e.g. Madeira, Canary Islands and Cape Vert).

Questionnaire Survey

In some bathing areas the number of surveys is low and it needs to be continued to achieve representative data to determine the differences between bathing areas typologies, so only some of the questions are addressed in this study.

One of the characteristics of the São Miguel bathing areas is their local use as almost 80% of the interviewed are residents in the Island. Besides, when we asked users why they choose that specific bathing area, by far the most representative answer was proximity followed by social reasons (meeting point with friends, tradition, etc.), which demonstrate that there is a very close relationship between users and each specific bathing area.

Users often refer to the bathing area as their own.

In contrast, when a list of factors is exposed for reflection (Figure 4) answers change drastically being, water quality, cleaning (litter), nature conservation, tranquility and scenery, theoretically, the most important factors to choose.

As we can observe through Figure 2, people choose bathing area by proximity (45% take less than 10 minutes) and they would change (Figure 3) aesthetic, litter/pollution, more infrastructures, more parking, access to the sea more security and more shadows to reach their ideal bathing area represented in (Figure 4). We believe that this demonstrate the urgent need to develop a effective ranking and evaluation system so that people can choose a bathing area according to their expectations.

Users seem to be aware of the blue flag however they don’t include it in the main factors to choose the BA. This subverts the objective of the award. In fact, people still relate it almost exclusively with water quality and are not aware of all the parameters implicit (Figure 5).
Another interesting point was the willingness to pay to use a bathing area with the premise of using it to improve the area. This fact can be seen as a demonstration of the social importance of these recreational areas that seems higher than what can be found in other places, specially in continental territories.

**CONCLUSION**

Surveys will continue to be made in order to obtain more conclusive data about quality perception of bathing areas in São Miguel along with other studies such as scenic evaluation, function and dimensional analysis. Authors truly believe that this line of work will be extremely useful as the tourism impact is expected to increase in the Archipelago in near future.

**LITERATURE CITED**


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