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## Fisheries-related Tourism in Southern Tyrrhenian Coastline

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### Abstract

Among several possible development activities, the Fishery Local Action Groups (FLAGs), activated with the EC Regulation 1198/2006, can promote fisheries-related tourism activities that may represent a driving sustainable force, for economic local development in coastal areas, in line with the EU objectives of reducing the fishing effort and, at the same time, fisheries-related tourism. The main objective of this study is to analyze the trend of the territory of the "Stretto" Coast FLAG in Calabria to diversify the fishing activities, also through the comparison with the Aeolian Islands, which are part of the "Islands of Sicily" FLAG. The methodology includes direct surveys through privileged witnesses such as fishermen and fishing cooperatives of the two areas. The results show some differences: in the Aeolian Islands the practice of fisheries-related tourism activities is conducted continuously all the year, in a few cases the fishermen also offer accommodation; on the contrary, in Calabria in the "Stretto" Coast FLAG vessels are of larger dimensions and fishing tourism is occasional and not widespread. Adequate promotion and marketing, and policy support are lacking in both areas.

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## 1. Introduction

The fishing areas in the Southern Tyrrhenian coastline of Italy offer magnificent landscapes. Indeed, in such areas, the agriculture and fishing activities are combined with sustainable tourism and fishing tourism, favored by uncontaminated environments and enviable seas (Chen, 2010; Cillari Falautano, Castriota, Marino, Vivona, & Andaloro 2012; Colloca, Crespi, Cerasi, & Coppola, 2004). In addition to being a source of supplementary income for the families of fishermen and other people in the area, fisheries-related tourism as “pesca-tourism” and “itti-tourism” can help the promotion of local fish products through a variety of activities ranging from direct sales to tourists, local traditional restaurants, local events related to the fishing activity and fisheries products (Madau, Idda, & Pulina 2009; Mourde, 2014; Ruggieri, 2006). On the other hand, by looking at traditional activities like fishing, it could be possible to attract visitors looking for a more authentic experience, and thus encourage the development of sustainable tourism that could create benefits for the local community. Moreover, although in some areas fishing is still an attractive profession, sometimes it is difficult for the fishermen and their communities to depend only on fishing (FARNET Guide No. 9, 2014). Indeed, in recent years, the fisheries sector has experienced serious difficulties (decrease of fish stocks, lack of competitiveness, the EU targets for reducing discards and unwanted by-catches) that resulted in lower profitability and unemployment (FARNET Magazine No. 4, 2011). For all these reasons, it is necessary to diversify the fishing activities by focusing on innovation and diversification (Nicolosi, Sapone, Cortese, Laganà, & Marciànò, 2015).

In this context, in order to be competitive, fish entrepreneurs could experience “the industrialization of tradition” (Gruppi di Azione Costiera italiani, 2014), i.e. by marketing products and services with the features of “tradition”, “innovation” and “quality”. In this context, the fisherman must attempt to renew his activities through the implementation of business activities that are economically, socially and environmentally sustainable. Fisheries-related tourism activities represent an innovative diversification strategy, offering fishermen, their families and other members of the fisheries community a possibility to create new sources of employment and income (FARNET Guide No. 5, 2011). Furthermore, the economic diversification of fisheries areas is a strategic challenge to build opportunities for tourism and sustainable development, promote the territory and its identity; protect the environment, enlarge the fish food chain by transforming the product and stimulating the demand for the “0 km” Fish Market (Battista, 2008).

On the other hand, the Aeolian Islands and “Stretto” Coast FLAGs are fragile areas and the presence of a mass tourism in brief periods of the year can threaten the delicate balance of the ecosystem in these territories (Nicolosi, Tromby, Strazzulla, & Cortese, 2010; Nicolosi, Cortese, & Di Gregorio, 2014). For such areas, the UNESCO Site Management Plan, proposes guidelines that emphasize the importance of a better use of natural resources in the systems related to ecotourism, combined with the improvement of the quality of agriculture and fishing products.

The main objective of this first contribution is to evaluate the possibility of the promotion and development of the fisheries-related tourism activities as an innovative action to allow the diversification of fisheries areas in “Stretto” Coast FLAG in Calabria (Marciànò, Romeo, & Cozzupoli, 2015), also by comparing the activities with the Aeolian Islands which are part of the “Islands of Sicily” FLAG. This evaluation allows to outline the strategies to be implemented in order to promote and develop fish products to turn them into a tourism product that can strengthen and enhance the tourism supply of both the Aeolian Islands and “Stretto” Coast FLAG in Southern Italy.

## 2. Methodology and results

To evaluate the possibility of development of “pesca-tourism” and “itti-tourism” in the Aeolian Islands and the “Stretto” Coast FLAG. Data and information collection was performed through structured direct interviews to fishermen. Information on general and socio-economic characteristics of fishermen in the area, on the attractive factors of the territory, on the obstacles to the development of “pesca-tourism” and “itti-tourism” and future perceptions were gathered. The questionnaire was divided into the following main sections: General information about the company and the fisheries entrepreneurs; Vessel type and gear systems; Promotional strategies; Types of tourists; Attractive local factors; Activities and services offered; Obstacles to the development of “pesca-tourism” and “itti-tourism”; Future perception. The information gathered by direct surveys were integrated with information collected through the web sites of fish industries and fishing cooperatives, through literature retrieval and communications with experts.

The direct surveys, performed from July to September 2015, involved 24 fisheries entrepreneurs currently performing recreational fisheries-related tourism (15 in the “Stretto” Coast FLAG and 9 in the Aeolian Islands). The respondents were all men, professionals with a valid fishing license; they are mainly between 51 and 60 years-old (46.7% in the “Stretto” Coast FLAG and 66.7% in the Aeolian Islands respectively) and between 61 and 70 years-old (13.3% and 22.2% respectively). They have a junior high school degree (61.8% and 77.8% respectively) or higher level of education (38.2% and 22.2% respectively) (see table 1).

Table 1. Socio-economic characteristics of the fishermen.

	“Stretto Coast” FLAG	Aeolian Islands FLAG		“Stretto Coast” FLAG	Aeolian Islands FLAG
<i>Gender: Male</i>	100.0%	100.0%	<i>Family labour: 0</i>	-	88.9%
<i>Gender: Female</i>	-	-	<i>Family labour : 1-2</i>	80.0%	11.1%
			<i>Family labour: 3-5</i>	20.0%	-
<i>Age 18-30</i>	13.3%	-			
<i>Age 31-50</i>	26.7%	11.1%	<i>Employees: 0</i>	26.7%	33.3%
<i>Age 51-60</i>	46.7%	66.7%	<i>Employees: 1-2</i>	60.0%	66.7%
<i>Age 61-70</i>	13.3%	22.2%	<i>Employees:3-6</i>	13.3%	-
<i>Age &gt;70</i>	-	-			
<i>Education:</i>			<i>Status: Single</i>	6.7% <sup>1</sup>	-
Elementary school	61.8%	77.8%	<i>Status: Married</i>	93.3%	100%
Secondary school	38.2%	22.2%	<i>Status: Divorced</i>	-	-
Degree	-	-	<i>Status: Widowed</i>	-	-

Source: Field Survey, 2015.

In the “Stretto” Coast FLAG the vessels are larger than those of the Aeolian Islands, and they have a higher degree of specialization. In the “Stretto” Coast Flag, the “feluca” (a traditional wooden sailing boat) is used only for traditional swordfish fishing done with harpoons and spears (the fishing season runs from May 1<sup>st</sup> to September 1<sup>st</sup>). The other vessels are using polyvalent gears and they manage to catch various fish species by diversifying the catches, depending on the period of the season. However, the “pesca-tourism” and “itti-tourism” are not as sufficiently profitable as traditional fishing activities, also because the seats for guests are limited. Fishermen declare that they are unable to cover the costs of fishing tourism tours. When performed, the fishing tourism tour takes a whole day (about 8-9 hours) in which the fishermen explain the main fisheries activities and they cook on board the caught fish. Indeed, the vessels are equipped with a kitchen and the service is adequate for a number of guests ranging from 7 to 10. The main forms of advertising consist in the word of mouth, direct sales and collaboration with some hotels and restaurants. The species caught are mainly bluefish, cephalopods and swordfish; the target market is local, the marketing strategy is poor; in some cases, the total catch is sold to restaurants and to fishmongers, while in other cases fishermen give about half of their catch to middlemen and the remaining part is sold directly.

In the Aeolian Islands, the vessels analyzed have mid-small size, the fishing gear system is polyvalent. The gears used are longlines, trawls, gill nets and seine fishing lines. These vessels perform the fishing activity all the year and only stop themselves in the closed season. The Aeolian fishing fleet is represented by 129 vessels of which only 32 have the license for “pesca-tourism” activities but few use it on an ongoing basis (table 2). The “pesca-tourism” has developed over the last 10 years and the analyzed vessels perform their activity on the islands of Lipari and Stromboli. This activity is now in competition with tourist excursions that offer lower prices compared to the tour of fishing tourism since the vessels dedicated to excursions can carry more passengers and significantly reduce the costs per tourist. In general, the analyzed vessels can carry from 5 to 11 guests for a single fishing tour and the trips take from 3 to 6 hours. Some vessels have a kitchen on board and a lunch or dinner is often included in the price, consisting of caught fish and local products such as capers and “malvasia” wine. The cost of one tour of “pesca-tourism” varies from € 30 for daytime trips of 3-4 hours, to € 50 for nighttime trips with squid fishing (dinner included) to € 80 for a full day trip (7-8 hours). Advertising is usually managed directly by the fisherman's family through the placement of

small boxes on the dock or in the main streets, but word of mouth plays an important role in small Aeolian communities.

Table 2. Technical Specifications of vessels analyzed by the direct surveys.

	"Stretto" Coast FLAG	Aeolian Islands FLAG		"Stretto" Coast FLAG	Aeolian Islands FLAG
<i>Construction year</i>			<i>Power (Kw)</i>		
1960-1990	33.3%	11.1%	<50	20.0%	22.2%
1991-2000	26.7%	33.3%	51-100	13.3%	44.4%
2000-2011	40.0%	55.6%	>100	66.7%	33.3%
<i>Gross tonnage (GT)</i>			<i>Principal fishing system</i>		
<5	20.0%	44.4%	Gillnets and Entangling nets	26,7%	-
5-10	20.0%	55.6%	Hooks and Lines	20,0%	77.8%
11-20	33.3%	-	Harpoon	20,0%	11.1%
>20	26.7%	-	Surrounding Nets	6,7%	-
			Drifnets	6,7%	11.1%
			Trawls	20,0%	-

Source: Field Survey, 2015.

There is also a collaboration with local activities (e.g. restaurants and hotels) for booking. A few entrepreneurs also advertise their activities on websites and social networks. Among the tourists, there is a large percentage of foreign tourists ranging from 30% to 50%.

Two Aeolian entrepreneurs are performing "itti-tourism" activity and have a total availability of 32 beds. The price varies depending on the season and the price for a double room ranges from a minimum of € 70 / day (spring or autumn) to € 130 / day (summer). In general, tourists are from Italy (about 70%) and from Germany, France and Switzerland (about 30%). Entrepreneurs offer tourist packages that include the fishing tour mainly at night for fishing squid. Regarding the promotional strategies, both entrepreneurs have a website or use traditional advertising (i.e. newspapers, magazines etc.). They welcome all types of tourists (families, students, groups of tourists) who use to stay for a week. The caught species are mainly small pelagic (anchovies, sardines, dorado, amberjack) but also cephalopods (mainly squid and cuttlefish) and soup fish (scorpion fish, gurnard sea, red mullet), only occasionally fishermen are dedicated to swordfish fishing.

In order to evaluate the possibility of "pesca-tourism" and "itti-tourism" development in the Aeolian Islands and "Stretto" Coast FLAG, a SWOT analysis was performed. Thus, on the basis of the collected and processed data and through a retrieval of the published studies regarding the "best practices" and the key factors for the implementation of this intervention in different local contexts, a cross-reading of the identified factors was carried out (Battista, 2008; FARNET Magazine No. 4, 2011; FARNET Guide No. 5, 2011; FARNET Guide No. 9, 2014; Gruppi di Azione Costiera italiani, 2014; Henichart, Morgan, & Lesueur, 2012; Municipality of Trabia, 2011). The result of this analysis is shown in a matrix (table 3), organized into four sections containing the strengths, weaknesses, opportunities and threats concerning the development of promotion and development of "pesca-tourism" and "itti-tourism" in the Aeolian Islands and "Stretto" Coast FLAG. Through the SWOT analysis, it is possible to highlight the strengths and weaknesses in order to bring out the opportunities and threats that are derived from the external environment faced by specific realities of the fisheries and the local tourism sectors. The strengths and weaknesses are considered endogenous factors, since they are integral part of the system; On the contrary, opportunities and threats are external factors.

Table 3. SWOT Matrix.

<b>STRENGTHS</b>	<b>WEAKNESS</b>
Local products	Lack of information and opportunities
Festivals and traditions / popular events related to fisheries	Economic factors: high costs, insufficient revenue to cover costs
Recipes of the local tradition gastronomy	Social factors: inadequate skills of hospitality and culture
Flora and fauna marine, mammals and birds	Lack of touristic formation
Diversity of landscapes, coasts, beaches, waters, cliffs	Lack of brand / identity that makes my only offer and exclusive
Unspoiled natural environment	Lack of a strategy for the promotion fishing tourist
	Lack of transnational cooperation between fisheries areas.
<b>OPPORTUNITY</b>	<b>THREATS</b>
Tourism and fisheries sectors growth new job opportunities and safeguards of income in fisheries areas	Stagnation in demand for tourism due to the global economic crisis
Diversification into other activities	Competitiveness of the tourism system
Growth of interest for rural-nature tourism increased demand for local products	Tourist presences concentrated in time and space
Increased market share for both fisheries and tourism sectors.	Possible coastal pollution
Potential synergies with other tour operators	Competition by other tourist attractions
Promoting fisheries products, traditional local cuisine resulting in new job opportunities	Development of new tourist destinations
Environmental and landscape conservation	Increase the bargaining power of tourism intermediaries

### 3. Conclusion

The activities of “pesca-tourism” and “itti-tourism” can play a “multi-functional” role in the development of fishing villages and in the enhancement of their human, environmental, natural, scenic, historical and cultural resources. This study has analyzed the fisheries-related tourism activities in the areas of the Aeolian Islands and “Stretto” Coast FLAG in Southern Italy. The results show that the aspect of enhancement and preservation of the maritime culture is mainly underestimated by the stakeholders of fisheries in the “Stretto” Coast Flag and in the Aeolian Islands. The fishermen may choose not to diversify into new activities because they may be less profitable than the fishing activity and also because tourism activities are not part of traditional fishing. Moreover, poor transport structures and a lack of direct public funding discourage the development of fisheries-related tourism activities. Finally, there is a low generational turnover in the “Stretto” Coast FLAG, where the age of fishermen varies from 55 to 65 years. These factors cause a low propensity to innovation, poor access to new forms of communication (social networks, e-commerce and ICT) and therefore lack of openness towards new business activities such as fisheries-related tourism activities.

The results show some differences in the two areas investigated: in the Aeolian Islands the practice of fisheries-related tourism activities is conducted on an ongoing basis all the year; on the contrary, in the “Stretto” Coast FLAG, it is not widespread, because of insufficient promotion, marketing, and policy support. The analysis carried out in this study is a useful starting point for local government, fisheries and tourist entrepreneurs in evaluating the possibility of development of “pesca-tourism” and “itti-tourism” as innovation and diversification strategies in the Aeolian Islands and the “Stretto” Coast FLAG in Southern Italy.

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