# Global attendance study in the Estérel Massif to preserve and manage a protected area

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Chosen parallel sessions (if any): "Why count? Best practices in the field of pedestrian data collection to preserve and manage natural areas"

Type of presentation: Oral presentation

## Estérel attendance study context

Located between the Alps and the Méditerranée, the Estérel Massif is a remarkable natural area of the Côte d'Azur seashore. Due to its diverse and spectacular volcanic landscapes, protected natural areas, rich Mediterranean biodiversity and proximity to great touristic cities such as Cannes and Saint-Tropez, the Massif is very attended.

Even though parts of the Massif are protected by a variety of conservation programs or rules, the Estérel area had no specific coordinated policy for natural area preservation before 2016: the area's management was shared between several local organizations and jurisdictions with no common policy. Over time, dysfunctions developed, such as landscape quality deterioration, degradation of roads and paths, lack of overall coherence in the touristic development, defective signage, uncontrolled public attendance on specific fragile areas and an increased risk of forest fire.

To cope with these difficulties and to mobilize new financial resources, the Intercommunal Syndicate for the Protection of the Estérel Massif (SIPME) adopted in 2015 a Forest Charter to better integrate the multiple functions of the forest (ecological, social and economic) within the framework of a coordinated management. It is also planned to complete this process with a "Grand Site de France approach" to deal with the high attendance level issues and to reach excellence in sustainable territory management.

The Grand Site de France approach aims to:

- restore and actively protect the landscape, natural and cultural quality of an iconic and well-known "Classified Site";
- improve the quality of the visit (reception, parking, trails, information, animations) in respect of the site;
- promote local socio-economic development in respect of the inhabitants;

This process aims for the site to be registered by the French State as a "Grand Site de France" (demanding trademark) and justify the launch of a quantitative and qualitative attendance study.

### **Material and methods**

The quantitative and qualitative attendance study commissioned by SIPME and carried out by TRACES TPI began in July 2016. It included a data collection period of 12 consecutive months for a total duration of 24 months. The study was conducted on a forest and coastal natural area of 22,000 hectares with numerous access points within the Massif. Various measures were put in place to determine the importance and location of visitor flows, the number of visitors, their profiles, their activities and their expectations:

The attendance study protocol was based on nine complementary measures:

- 1. Completion of 1629 visitors surveys/interviews, spread over 27 different survey points (3000 profiles obtained) to analyze profiles, practices, expectations, and description of the routes taken on the day of the interview.
- 2. 120 half-days of visual counting of people and vehicles, spread over 24 counting points (including car parks).
- 3. Installation of permanent eco-counters (pedestrians, pedestrians-mountain bikes, or car), belonging to 3 different organizations (SIPME included), spread over 17 counting points.
- 4. 1500 self-administered questionnaires given at tourist offices of the territory and at hosting places (tourist residences and campsites) with 158 responses.
- 5. Online survey of locals and residents which gave 937 responses.
- 6. Online survey for tourism professionals (hosts, activity providers, restaurants, crafts, others)
- 47 responses were received.
- 7. Interviews (4) with officials of tourist offices of the territory.
- 8. Interviews (10) with a panel of tourism professionals offering services in the massif or its coastline (guides, marine activity managers, etc.).
- 9. Interviews with a breeder / a beekeeper / representatives of hunting federations.

The permanent eco-counters will allow to updated the data for the years to come in order to observe the attendance evolution.

For natural area attendance analysis, the combination of several measures draws a body of evidence to validate the overall attendance (number of visits and number of unique visitors) and its spatial distribution. The results of eco-counters, visual counts, profile surveys and circuit descriptions were cross-checked. Data validation was undertaken, using mathematical, statistical and econometric skills to verify, correct, convert and consolidate data locally and globally.

The cross-referencing of qualitative observation data (profile and route survey) and quantitative data (car parks and trails visual counting) with automatic counting devices ensured the most accurate, consistent and relevant attendance study possible. It made it possible to quantify the number of visits and to deduce the number of unique visitors.

Interviews were also used as methodological elements to check and complete statisticians' approach.

#### Results

The study conducted by TRACES TPI provided detailed information on the use of the Estérel Massif.

- Overall attendance of the Massif: yearly attendance (number of visits and number of unique visitors), attendance by period (monthly, weekly), and attendance by type of user.
- Attendance profile: variations between sectors, parking lot attendance, mapping of main transit routes.
- Visitors profile: sociological profile, activities, transport mode, profile and practices by geographical origin (tourist, resident, regional excursionists).
- Detailed attendance analysis by sector (15 sectors in total. Example: Figure 1).
- Perception, expectations and knowledge of the Massif: visitors, inhabitants, tourist offices, professionals involved in the Massif, tourism professionals (hosts, etc.).
- Attendance evolution analysis with recommendations for planning, governance, information and communication.

The study highlighted major challenges for the area's managers.

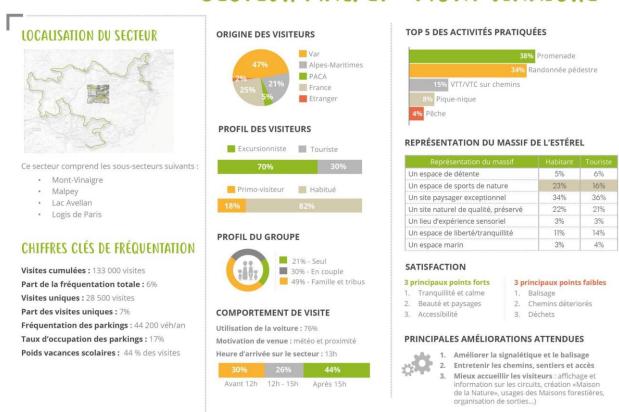
- Attendance is massive in terms of cumulative volumes (2,150,000 visits / year and 435,000 unique visitors / year).
- Attendance is growing, making today's minor difficulties problematic for the future.
- Large differences exist across sectors, in terms of attendance and visitor profiles, which implies different planning and communication strategies for each sector.
- The site is visited all year long, with a peak in pre-season (April-May) and is subject to very diverse user experiences (hiking, strolling, mountain biking, rock climbing, hunting ...)
- The dissemination of users in time and space, the diversity of access and activities observed and feedback from users highlight the need for a spatial master plan, including sites and trails related to outdoor activities.

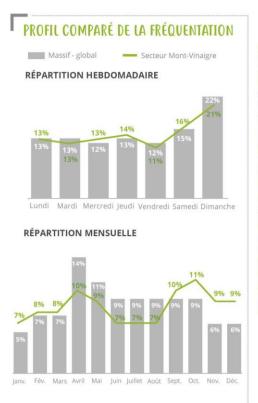
## Conclusion: data usefulness for Estérel managers

The diversity of quantitative and qualitative data produced allowed area-managers to:

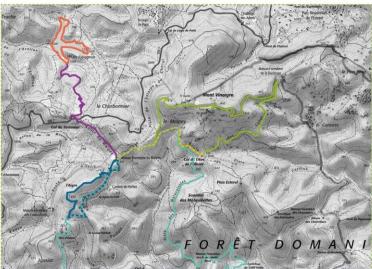
- highlight territory dysfunctions and management issues;
- justify development, management or communication projects with politicians, financial partners and inhabitants (citizens voters);
- provide statistical data to develop routes and manage expectations of target audiences;
- mobilize additional financial means to implement sustainable, active and ambitious management of this exceptional natural area.

## SECTEUR MALPEY - MONT VINAIGRE





## PRINCIPAUX PARCOURS ET ITINÉRAIRES



#### PRINCIPAUX OBJECTIFS DE LA VISITE ET ÉCHELLE DE FRÉQUENTATION ESTIMÉE

Lac d'Avellan	Entre 30 000 et 50 000 visites
Col de l'Aire de l'Olivier	Entre 10 000 et 30 000 visites
Tour de L'Aigre	Entre 10 000 et 30 000 visites
Liaison Avellan/ Malpey	Entre 10 000 et 30 000 visites
Tour du Mt Vinaigre	Entre 10 000 et 30 000 visites
Grand tour via Castelli	< 10 000 visites

Figure 1: Sector analysis example. Extract from the attendance study (SIPME, 2018).