



2023 TOP 100

GOOD PRACTICE STORY

Title: Josep Pascual Massaguer, a key figure in our understanding of the climate crisis

Destination, Country: Torroella de Montgrí – l'Estartit. Spain

Submitted by: Click here to type the name of the submitter and his/her work position.

In the category: ☐ Destination Management ☒ Environment & Climate ☐ Thriving Communities
☐ Nature & Scenery ☐ Culture & Tradition ☐ Business & Marketing

The Story in a picture:

Josep Pascual, collecting data 1 mile from the Medes Islands Marine Reserve in the boat inherited from his father, a fisherman.



Summary:

L'Estartit-Torroella de Montgrí, a destination on the Costa Brava (Girona, Spain), has a partner who's been key to the municipality's commitment to more sustainable tourism. His name's Josep Pascual Massaguer, a son of fishermen, and for over 50 years he's recorded data linked to the coastal climate of incalculable value for the international scientific community, ones that were recognised by NASA in 2019 (see attached letter). And he's done so voluntarily. These records highlight the impact of climate change on a coastal area which is beginning to suffer harm due to the rising sea levels and high temperatures and allow for an improved assessment of the human contribution to the greenhouse effect. It's worth emphasising his very close relationship with the Tourist Information Office in L'Estartit, which he has cooperated with on an ongoing basis, and his efforts to popularise what today would be classified as "citizen science".



Good Practice Story:

Destination description

Brief background of the destination.

Destination description

The municipality of Torroella de Montgrí-L'Estartit is situated in the county of Baix Empordà, in an area of great environmental interest marked by a wide variety of geographical features. The municipality of Torroella de Montgrí-L'Estartit, which has an area of 66 square kilometres, includes a wide variety of ecosystems and landscapes, ranging from the mountainous terrain of the Montgrí Massif to the Baix Ter Plain and the coastal strip, flanked by the Medes Islands as an outstanding feature. The area covered by the Baix Ter Plain, the Medes Islands and the Montgrí Massif was made into a Natural Park in 2010. The municipal area of Torroella de Montgrí-L'Estartit includes 68% of the total area of the Park.

Given the special characteristics of the heritage of this area, the municipal council is firmly committed to the protection of the landscape and its diverse habitats, which are home to a wide variety of flora and fauna.

The wildlife present in the massif, the islands, the coastal dunes, the marshlands and the agricultural plain are all vital for the preservation of a landscape that is exceptionally rich in terms of natural heritage.

Sustainability policies

In line with these principles, for many years now we have applied policies designed to combine successfully the municipality's tourism-related activities with the preservation of the environment, in perfect harmony with continuing economic development. We are thus firmly committed to sustainability in all its aspects (environment-friendly development of tourism, transport, energy saving, optimum management of publicly owned woodlands, recovery of existing areas, etc.), and also to the safeguarding and enhancement of natural sites and their habitats, and to the restoration of heritage features in these areas, such as footpaths, outstanding buildings and other landmarks.

Issues faced

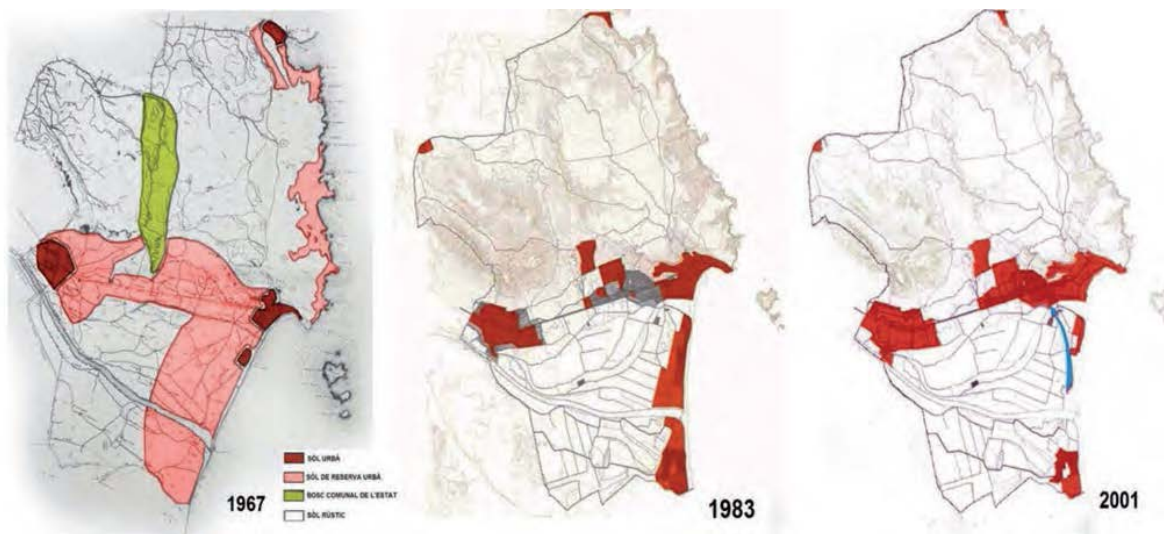
Problems/issues solved with the Good Practice Story.

Urban growth linked to tourist activity in L'Estartit has potentially posed a threat to the environment since the 1960s and 1970s, without the population or the authorities being aware of the fact.

This was a time when nobody was talking about climate change; conversely, it's been proven that it's significantly affecting the Mediterranean coastline and also, therefore, L'Estartit-Torroella de Montgrí.

Nevertheless, since the late 1970s, with the first democratic town council, a pledge was made to protect its natural and historical heritage and the agricultural areas on the plain and in the forests of Montgrí. At the same time, the urban growth planned during the 1960s was severely restricted, growth which would have allowed construction work in areas that are currently protected as a Natural Park. The Medes Islands Marine Reserve was also created.

From the birth of tourist activity to the present day, the municipality has progressively reduced the amount of land that can be developed and increased the number of protected areas.



Evolution of the general urban development plan of the municipality of Torroella de Montgrí-L'Estartit

Methods, steps, and tools applied

Solutions implemented to address the sustainability problems or issues.

Within this context, there's one outstanding figure in L'Estartit, namely Josep PASCUAL MASSAGUER, born in 1950 in a family of fishermen, who became interested in meteorology from a very early age. Very soon he began to make meteorological and oceanographic measurements with a systematic method that he still uses today in an altruistic manner.

This is the most obvious example of "thinking globally, acting locally".

We should mention that in 1973 he began to collect samples of seawater on a regular basis, one nautical mile from the Medes Islands and down to a depth of 80 metres, work which continues without any interruption to this day. The above makes this series the longest one on the entire Mediterranean coast and one of the longest and most comprehensive ones in the world. Josep PASCUAL MASSAGUER is interesting in that he's carried out a task in a silent and painstaking way, selflessly passing the results on to anyone asking for them.

He's also systematically made other measurements that prove the regressive movement of the coastline and the changes linked to global warming (higher temperatures, less rainfall, etc.).

And what relationship does Josep PASCUAL have with L'Estartit and Torroella de Montgrí as a tourist destination?

The relationship has actually been very close. On an internal basis, it has given the municipal governors and the population greater understanding of the effects of climate change, such as the regression of the beaches and the need to regenerate the coastal dunes and protect and even de-urbanise ecologically sensitive areas, particularly those beside the sea, as is the case of La Pletera (GPS for 2018?).

Moreover, the distribution of the data and the magnificent photographs taken by Josep PASCUAL everywhere in the media, especially those with the largest audiences in Catalonia, has been crucial in helping to position the municipality as a sustainable and regenerative tourist destination.

In the case of the Tourism Area, Josep has been visiting the Tourism Information Office in L'Estartit for over 30 years to manage and send the weather forecast for the municipality as a permanent

partner. His observations and weather forecasts were initially published on the notice board in the office and later on a poster on the promenade, in front of the current location of the Tourism Information Office and very close to the weather station.

Key success factors

Critical elements that led to successfully solving the issues.

The regularity of the daily publication of his observations and the singular nature of providing information on the temperature of the seawater has given L'Estartit an almost permanent presence in numerous media outlets. In fact, it was the reason why Televisió de Catalunya decided to install the first meteorological observation camera in the whole of Catalonia in L'Estartit in the late 1980s. This gave a lot of visibility and prestige to a town in which tourism represents the main economic activity and generates a large number of jobs.

Josep PASCUAL MASSAGUER's support for the popularisation and enhancement of the municipality's resources has had a major impact on the pledge made for a change in the tourism model, based on the protection of its assets related to nature, culture and the landscape.

It's also worth highlighting his role since the early 1980s in the design and signposting of a network of walking and cycling routes, a pioneering initiative in Catalonia's coastal destinations that was welcomed by visitors from home and abroad, who discovered a different way of enjoying a 'sun and beach' holiday destination. Without his drive, ingenuity and knowledge, all of this would have been much more difficult.

He's also provided us with valuable and beautiful photographic images on meteorological subjects and nature in general, images that he shares in books and the media and on his website at www.meteolestartit.cat.

Lessons learned

Challenges faced while implementing the Good Practice and their solutions.

The long records of the coastal climate provided by Josep Pascual as a volunteer meteorological observer are highly significant for the international scientific community. They underline the impact of climate change on a coastal area which is beginning to suffer harm due to the rising sea levels and high temperatures, while allowing for an improved assessment of the human contribution to the greenhouse effect and monitoring of the air/sea interaction.

The meteorological and marine station in L'Estartit can be regarded as a 'climatic hot spot' for monitoring the Mediterranean.

Stakeholders.

The data provided by Josep Pascual have served several generations of researchers, scientists and meteorologists, as well as artisanal fishermen, farmers and professionals linked to the Montgrí, Medes Islands and Baix Ter Natural Park in their daily work. They regard him as a reliable source and a point of reference in our country's meteorology, while his data are of incalculable value, not only for the scientific community but for society as a whole.

The 'Josep Pascual' folder can be found on the computers of all researchers linked to marine observation.

His contributions on wildlife, such as sightings of dolphins, seabirds and so on, are very important. These observations have on occasions proved useful in confirming phenomena observed in parallel

studies. Since 1973, he's saved all the information systematically on data sheets that he's filled out every time he's been out to sea and then archived.

In the field of university teaching, professors appreciate taking their students to learn, *in situ*, about the work he carries out and the *raison d'être* and operation of his measuring devices, enabling them to interpret the data generated in the L'Estartit weather station.

Above all, teachers and students all enjoy the thrill of seeing how he transmits his passion for meteorology.

The local population also benefits from the activity of Josep PASCUAL MASSAGUER in terms of his predisposition towards its schools and pupils. He's been one of their most loyal contributors for over 25 years, explaining his work and "generously sharing both the data resulting from his climate observations and his wonderful images of our natural environment".

Achievements and Results

Direct and indirect results of the Good Practice.

The data continuously collected over 50 years by Josep PASCUAL MASSAGUER, a task carried out in a silent and meticulous manner, which he has selflessly given to anyone who has asked for them, which today would be called 'citizen science', are of great value and provide scientists, the population and government with valuable information about how variable our climate is and the changes and trends that occur.

They are also a reference when it comes to evaluating the contribution of human beings to climate change, as expressed in his different interviews with the media. The information has made it possible to calibrate the data obtained by remote systems such as satellites and numerical prediction models.

It has therefore been key to the desire to move towards a more sustainable tourist model in the municipality of Torroella de Montgrí-L'Estartit, a traditional 'sun and beach' tourist destination that was threatened by trivialisation and excessive urban growth.

Tips for other destinations

Your suggestions or recommendations for other destinations facing the same issues or implementing similar solutions

By supporting and promoting "citizen science" initiatives which, in the case of Josep PASCUAL MASSAGUER, have taught us that, in order to understand future changes, it's vital to understand past ones too.

These initiatives can be linked to the global tourism strategy to place value on the territory, raise awareness of climate change at a local level and, very importantly, involve the educational and cultural communities, government and the population as a whole in decision-making.

It's important to convey that the tourism strategy must be aligned with the motto "better places to live in, ones that will be the best places to be visited".

At the same time, it's important to guarantee the continuity of this citizen science. In the case of L'Estartit, we must hope for a continuation of this work of incalculable value going back over 50

years, agreed as enabling L'Estartit to become the flagship monitoring site for climate change in the Mediterranean region. Unfortunately, that isn't guaranteed moving forwards. Hence the disclosure of the importance of this story of good practices in the Green Destinations community.

Recognitions and Additional references

Recognitions and awards the Good Practice received and supporting evidence.

It has been acknowledged by several entities at a local level, such as the Torroella de Montgrí Town Council, the Decentralised Municipal Entity of L'Estartit, the University of Girona, several universities and research centres around the country, and, on the international stage, by the National Aeronautics and Space Administration (**NASA**), which acknowledges it in an article dated 23rd June 2020 under the title:

Sea Change: Why Long Records of Coastal Climate Matter. A Monitoring Station off the Coast of Spain Is Giving Scientists a Front-Row Seat to Understanding the Region's Long-Term Climate Change. **Alan Buis**, NASA's Jet Propulsion Laboratory

<https://climate.nasa.gov/ask-nasa-climate/2997/sea-change-why-long-records-of-coastal-climate-matter/>

The article explains why it's important to monitor the sea temperature and other variables, continuously and without interruption over many years. As this monitoring is being carried out at the station in L'Estartit, it offers scientists a 'front-row seat' to enable them to understand trends in the long-term evolution of climate change in the Mediterranean region.

Links, news and references.

18/05/22. JOSEP PASCUAL HAS A PLAQUE ON THE PROMENADE

El Punt Avui

<https://www.elpuntavui.cat/societat/article/2141258-josep-pascual-ja-te-unaplaca-al-passeig.html?ItemId=2784&tmpl=print>

18/04/22. JOSEP PASCUAL, A THERMOMETER FOR THE LAKE IN BANYOLES

Diari de Girona

<https://www.diaridegirona.cat/comarques/2022/04/18/josep-pascual-termometre-per-l-65095082.html>

21/06/21 THE CONSTANT OBSERVER OF THE SEA

La Mira

<https://www.lamira.cat/persones/1635/observador-constant-del-mar>

15/10/20 THE ANONYMOUS RECORD KEEPER WHO MONITORS CLIMATE CHANGE IN

MARE NOSTRUM

El País Semanal

https://elpais.com/elpais/2020/10/15/eps/1602749776_700624.html

26/06/20 NASA 'SIGNS' METEOROLOGIST JOSEP PASCUAL

El Punt Avui

<https://www.elpuntavui.cat/societat/article/15-ciencia/1811756-la-nasa-fitxa-elmeteorolog-josep-pascual.html>