

**\*\*EGU Press Release under embargo till 11:30 CEST April 25, 2023\*\***

## Changing climate patterns indicate best times for Mediterranean water sports

*Local businesses and researchers in Spain co-create novel website that benefits tourists and businesses and can be replicated in other parts of the world*

MUNICH – A Mediterranean vacation — surfing, kitesurfing, windsurfing, stand-up paddleboarding, snorkeling, scuba diving, sailing, kayaking and even swimming — is living the dream. But these activities depend on good weather and water conditions, once fairly reliable in summer months. Due to the changing climate though, these conditions are becoming less reliable — which could lead to a loss of business for water sports businesses along the coastline. A team from the Centre for Climate Change at the Universitat Rovira I Virgili in Spain has a way to combat this unpredictability: their goal is to provide a website that businesses and tourists could check to determine the optimal days, weeks, and months for particular water sports.

The team will [present](#) details about this novel program — a partnership between local businesses and the researchers — next week during the European Geosciences Union (EGU) General Assembly [EGU23](#).

Activities like open-water swimming and stand-up paddleboarding require different conditions than surfing and windsurfing. One requires calm seas and the other wind and waves. So the website has to differentiate among the optimal conditions for each water sport when it lists optimal days and locations.

**Anna Boqué Ciurana, a climatologist at Universitat Rovira I Virgili** and an avid surfer, and her team partnered with local businesses, citizens, and local administration in Calafell, a coastal town in Tarragona province, Spain, to create the website to provide climatological and oceanographical conditions of the territory. Most visitors come to Calafell for the sun and stunning golden-sand beaches of Costa Dorada on Spain’s north-eastern coastline. Tourism peaks in the reliably warm and sunny months of July and August when the water tends to be calm. But businesses in the region are starting to offer more water sports and wondering if they can expand the tourism season beyond those two months.

After examining the wind and wave conditions of Calafell and different spots of Tarragona province’s coast from 1958 to 2022, Boqué Ciurana and her team found that the climate is, in fact, changing. For example, September will also provide excellent conditions for certain water sports. But another “interesting point of our results is that we see calm days tend to decrease for this region and brave days (high wind speed) and surf days (high significant wave height) present an increasing trend,” Boqué Ciurana says. Tourists could use the website to plan their vacations, heading to locations expected to have



higher waves during their vacations for surfing or heading to calmer areas for beach days. Alternatively, they could plan their timing to correspond to optimal conditions for their desired activities.

In the future, Boqué Ciurana and her colleagues hope to expand their website to cover more regions. Creating such a program that benefits tourists and businesses is replicable elsewhere, Boqué Ciurana says.

Want to learn more about how researchers are helping determine the best times for water sports in the central-western Mediterranean? Check out the PS4.1 session at EGU23 on **Tuesday, 25 April, at 11:05 CEST**.

The authors will also be available to the media on Wednesday April 26 from 10.30 to 12.30 CEST.

#### **Note to the media:**

When reporting on this story, please mention the EGU General Assembly 2023, which is taking place from 23-28 April 2023. This paper will be presented in session CL5.6 on Tuesday, 25 April, 08:30-12:30 CEST. If reporting online, please include a link to the abstract:

<https://meetingorganizer.copernicus.org/EGU23/EGU23-13063.html>.

Press release text by Megan Sever.

EGU Press Contact:

Gillian D'Souza

EGU Media and Communications Officer

Munich, Germany

[media@egu.eu](mailto:media@egu.eu)

#### **More information**

The European Geosciences Union (EGU) is Europe's premier geosciences union, dedicated to the pursuit of excellence in the Earth, planetary, and space sciences for the benefit of humanity, worldwide. It is a non-profit interdisciplinary learned association of scientists founded in 2002 with headquarters in Munich, Germany. The EGU publishes a number of diverse scientific journals, which use an innovative open access format, and organises a number of topical meetings, and education and outreach activities. Its annual General Assembly is the largest and most prominent European geosciences event, attracting over 14,000 scientists from all over the world. The meeting's sessions cover a wide range of topics, including volcanology, planetary exploration, the Earth's internal structure and atmosphere, climate, energy, and resources. The EGU General Assembly 2023 is taking place in Vienna, Austria and online from 23-28

April 2023. For information and press registration, please click [here](#), or follow the EGU on [Twitter](#) and [Facebook](#).

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Accompanying artwork:



Description: Sunbathing and swimming are popular at Segur de Calafell's beach in July and August. Researchers are working with local citizens and businesses to determine when water sports could be another tourism option.

Credit: Anna Boqué Ciurana