

Bird monitoring in DemoSATH LAB

Ane Ugena¹, Lucía Eggers¹, Natalia Vélez¹, Javier del Real¹, Giulio Marín², Laura Zubiate³

¹ Saitec Offshore Technologies (SOT)

² RWE

³ Biscay Marine Energy Platform (BiMEP)

Bird monitoring on the DemoSATH platform has revealed a low mortality rate (1 species/year), although with uncertainty due to limitations in surveillance. The combination of the DTBird detection system, CCTV cameras, and coastal observation has made it possible to analyze the behavior of key species and evaluate the impact of the DemoSATH floating platform. The results underline the need to continue optimizing mitigation strategies to ensure compatibility between offshore wind energy and biodiversity.



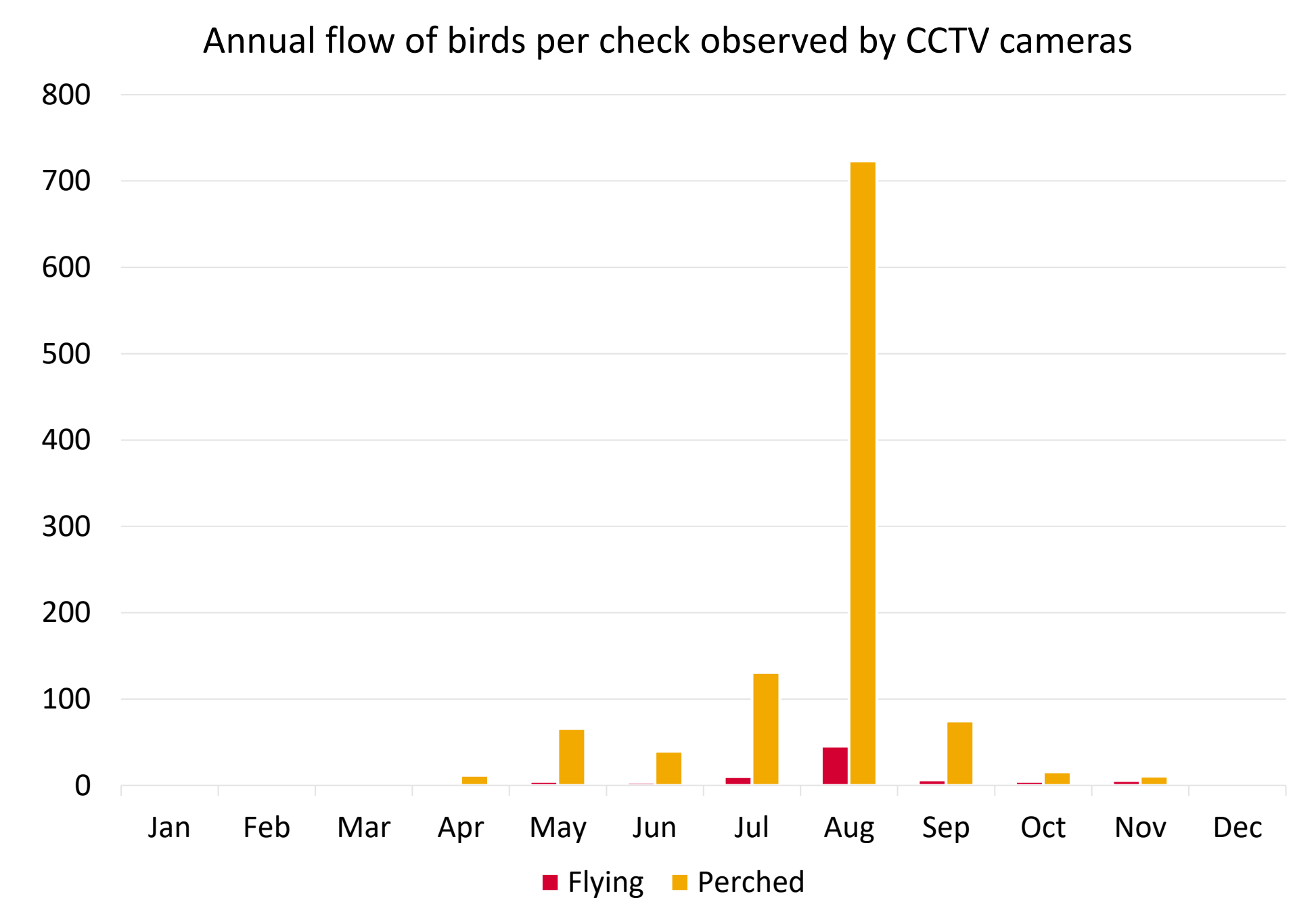
Uncertainty range of DTBird system :

- Camera's coverage: 80 %
- False negatives: 70 % (worst scenario)
- System activity: 91,5 %

This value allows readjusting the annual result regarding the mortality rates:

Observed mortality rate
1 bird per 17,859 bird events

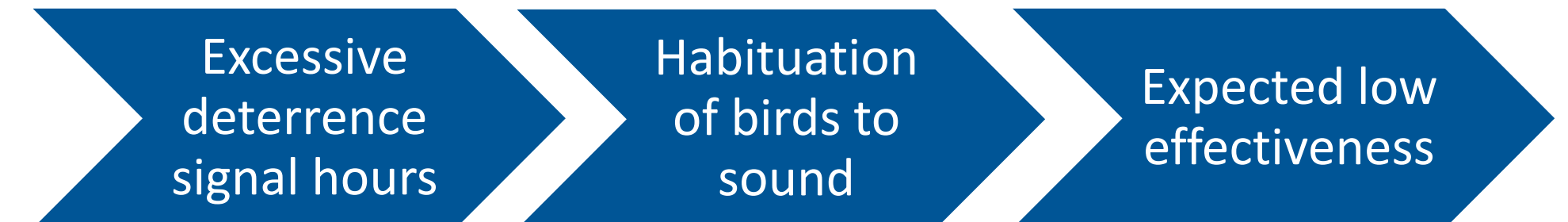
Corrected mortality rate
4.55 birds per 17,859 bird events



- More than 80% of the birds have been observed in the **summer months**
- Up to 99 % of birds detected with the CCTV are **yellow-legged gulls**
- 63 % of birds appear with the **rotor inactive**
- 92 % of birds appear perched on the platform (use of DemoSATH as a **rest area**)

DTBIRD DETERRENCE SIGNAL

Average signal **16,8** hours/month
Total signal **201,3** hours/year
August signal **137,8** hours/month



DTBIRD STOP SIGNAL

Average signal **19,1** hours/month
Total signal **229,1** hours/year
August signal **103,1** hours/month

Considering the **low mortality rate** observed during the year, it is considered to **adjust the sensitivity parameters** of the stop module.

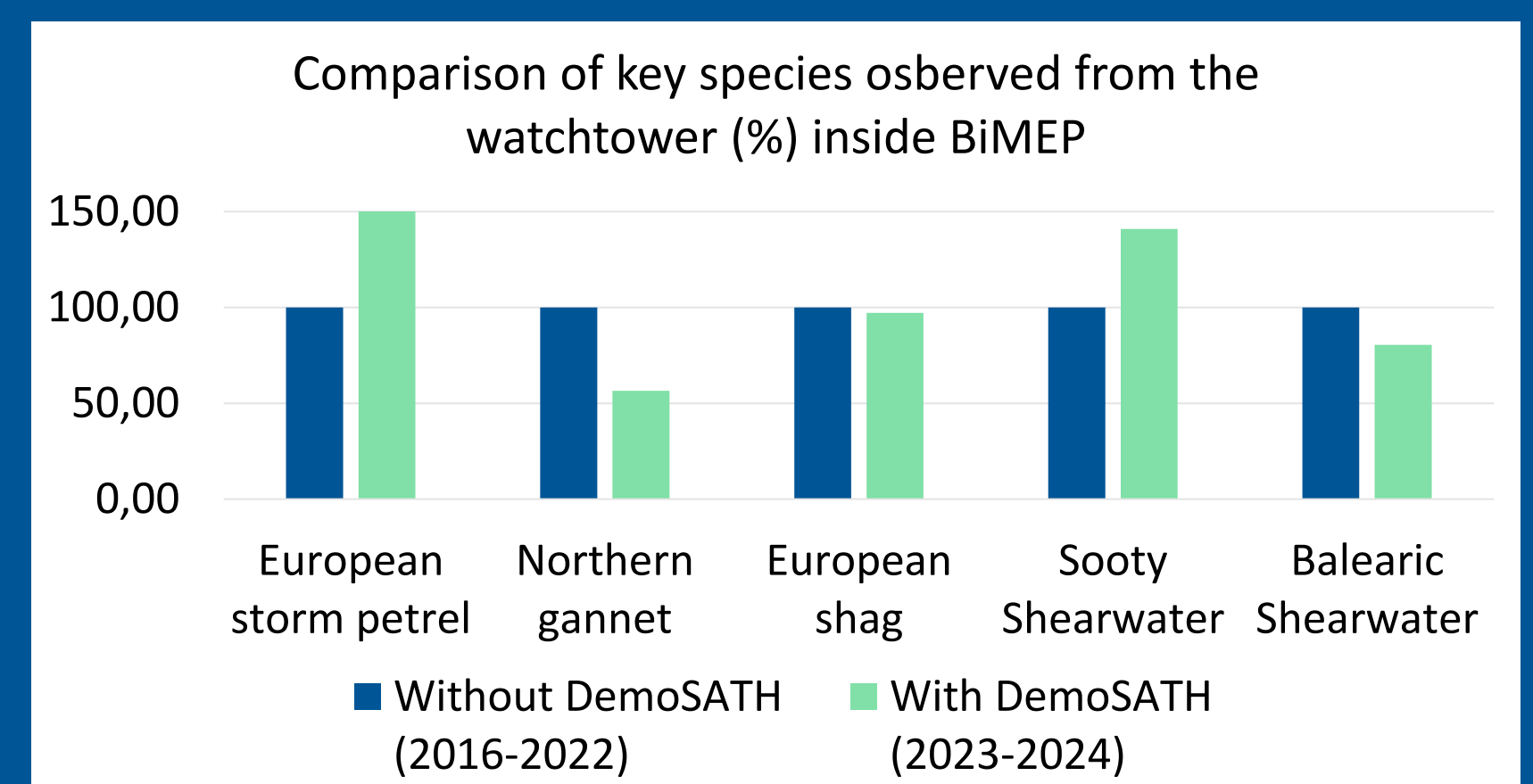
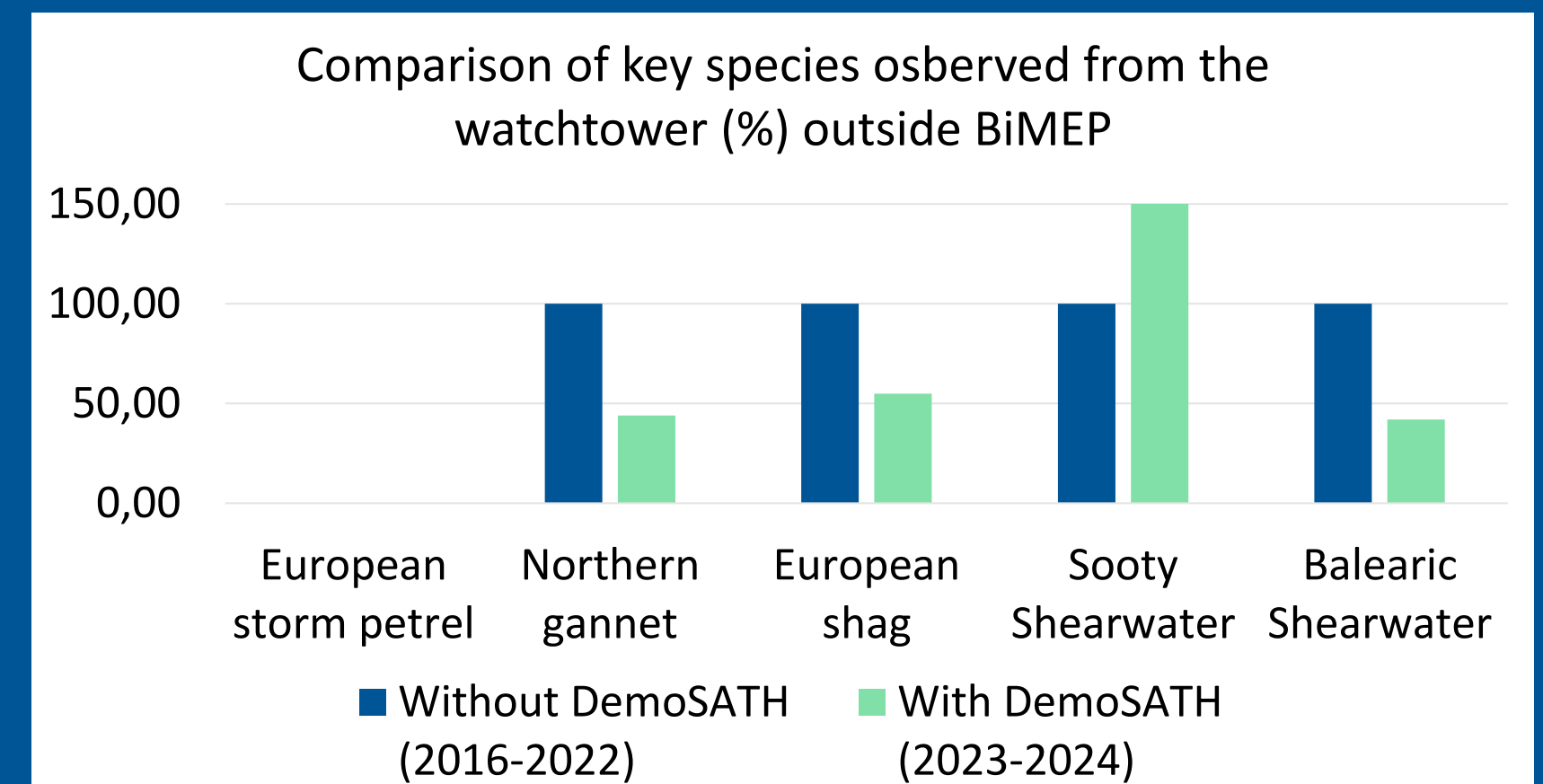
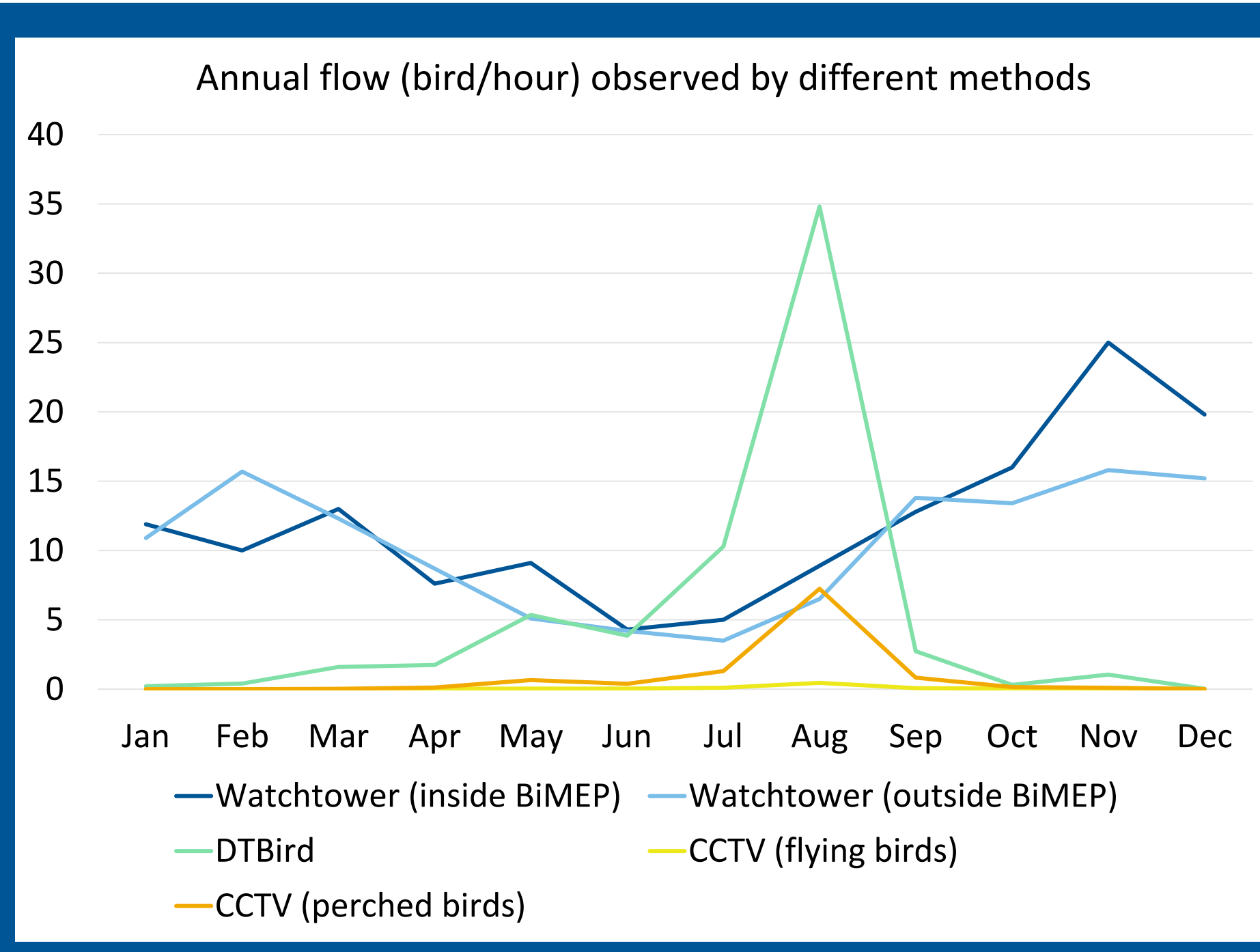
DemoSATH platform located in BiMEP, an open sea testing area within a Special Protection Area for Birds (SPA): ES0000490 Marine Space of the Mundaka-Cape of Ogoño.

BiMEP **Environmental Impact Statement (EIS)** requires bird monitoring

Key species: *Hydrobates pelagicus*, *Phalacrocorax aristotelis*, *Puffinus griseus*, *Puffinus mauretanicus* and *Morus bassanus*

Three **methods** to ensure comprehensive bird monitoring

- On site monitoring** from a nearby coastal watchtower
- DTBird system** with 4 day and night cameras
- CCTV cameras** to complement the DTBird system



No clear changes have been observed from the watchtower between the key species observed before and after the installation of the DemoSATH platform, neither outside nor inside BiMEP. Additional data from 2025 will help draw more precise conclusions.

Birds' data collected by CCTV cameras have been provided to ornithological entities with the aim of complementing the monitoring of the Bird SPA:

- Bird presence raw data
- Ringed species data
- Photographs and videos

