Development of an Application to Track Missing Persons at Sea

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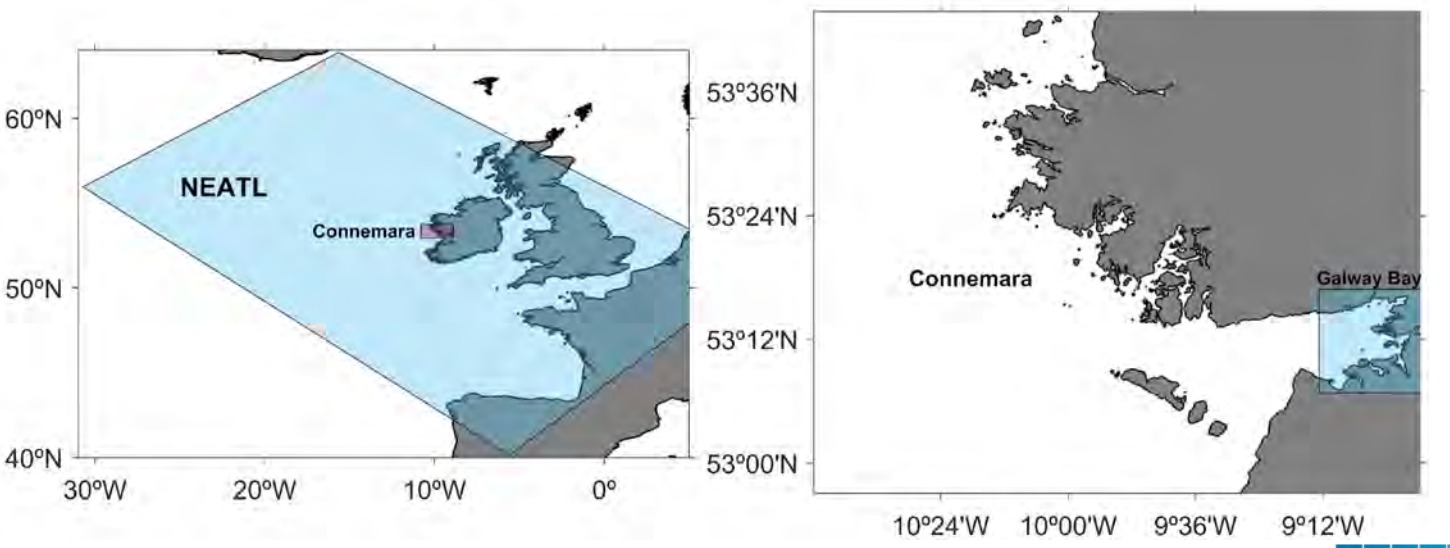
Search & Rescue Operations: need for an operational system

Importance of particle-tracking model parameters (e.g. windage)

Example of an operational system: the Marine Institute's ADRIFT, linked to 3-day forecasts from:

- Northeast Atlantic model
- Connemara model
- Galway Bay model



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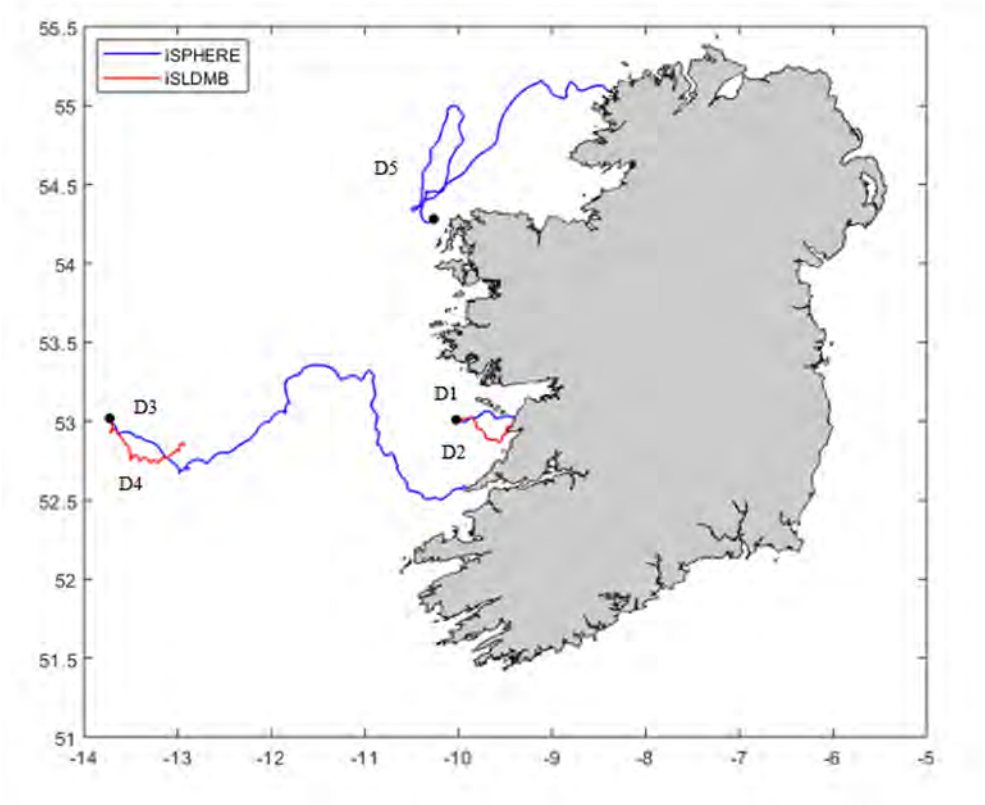
The importance of windage: experiments with drifters



Submerged drifter (iSLDMB)

Wind-exposed drifter (iSPHERE)

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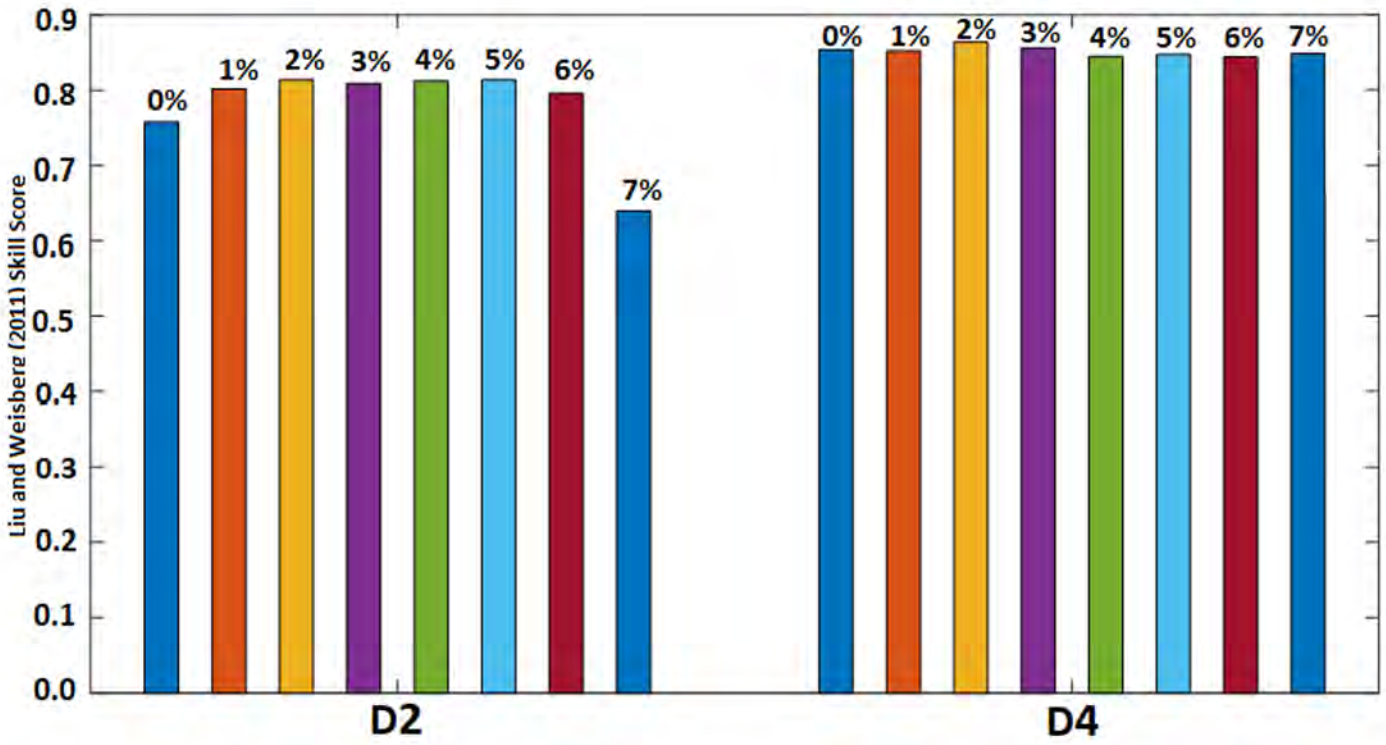
The importance of windage: experiments with drifters



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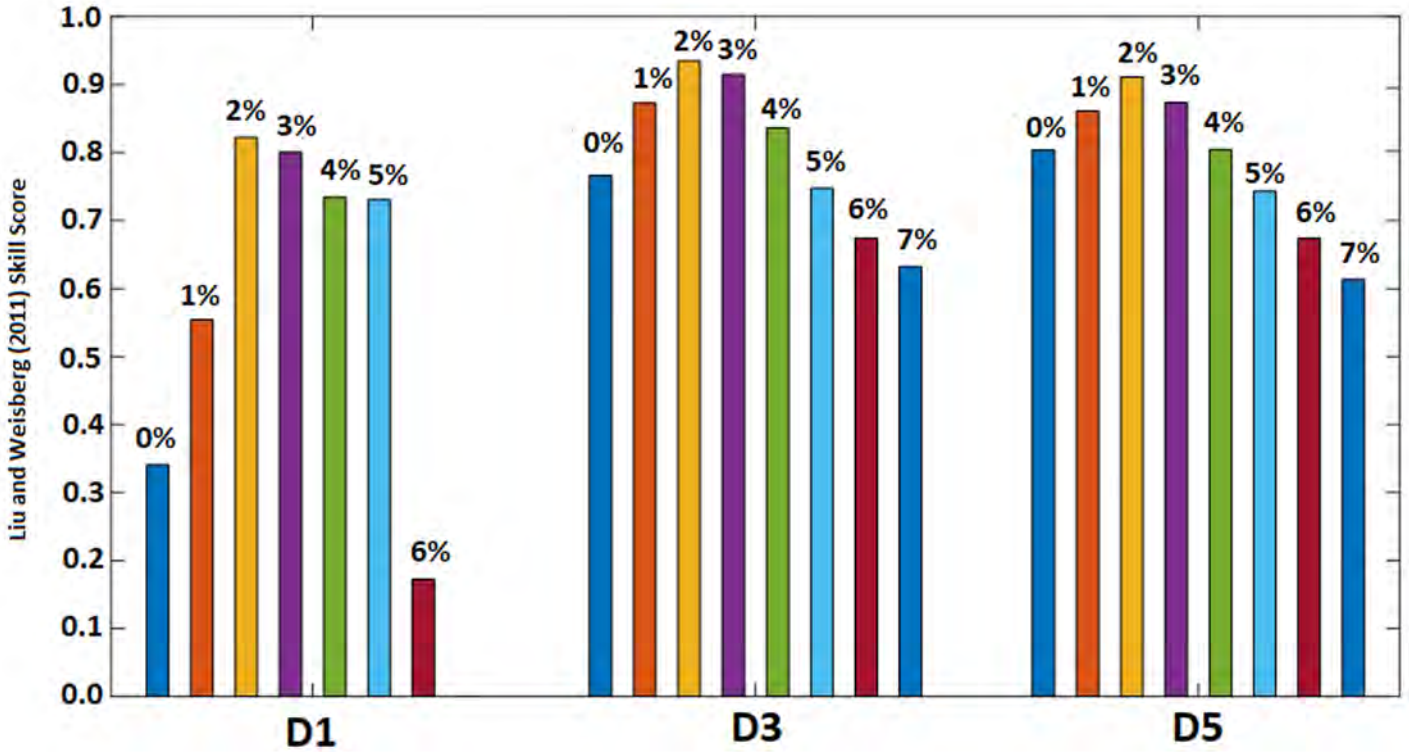

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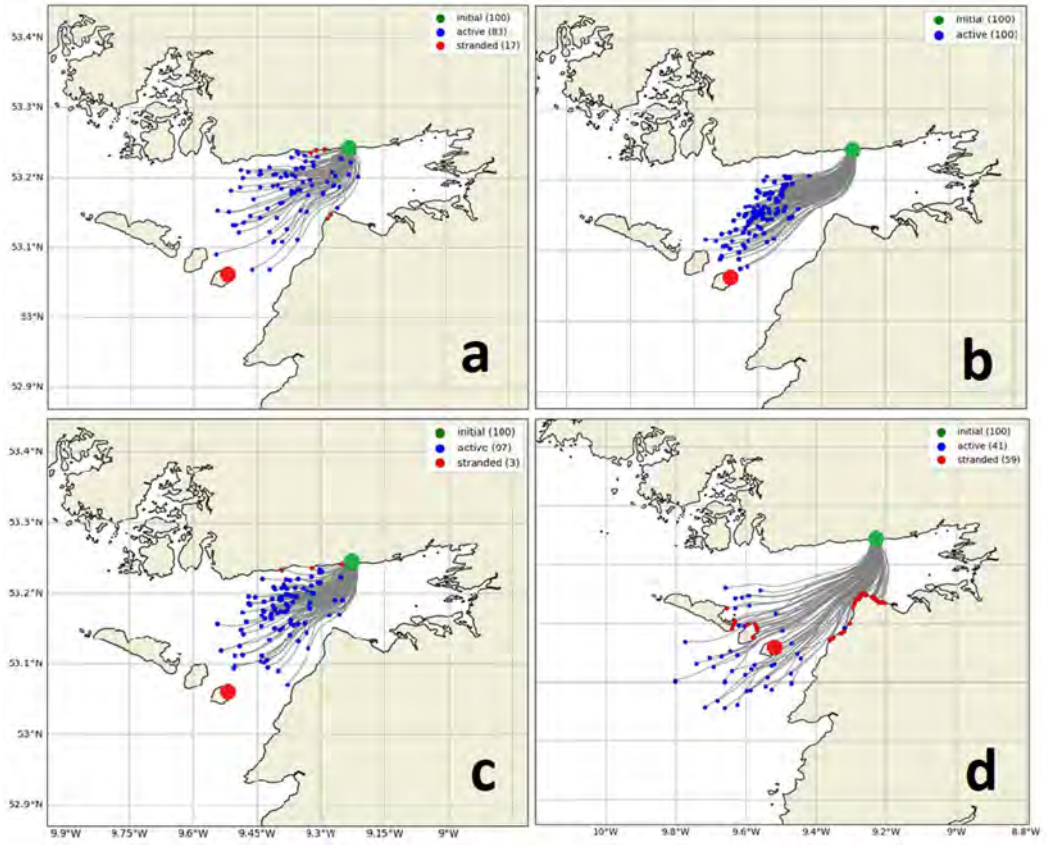
The importance of windage: the August-2020 Galway Bay case



OpenDrift (Dagestad et al., 2018)

Specific leeway, downwind, and crosswind coefficients for different floating objects:

a. PIW unknown state

a. PIW deceased

a. Surf board

a. No-ballast life-raft without drogue

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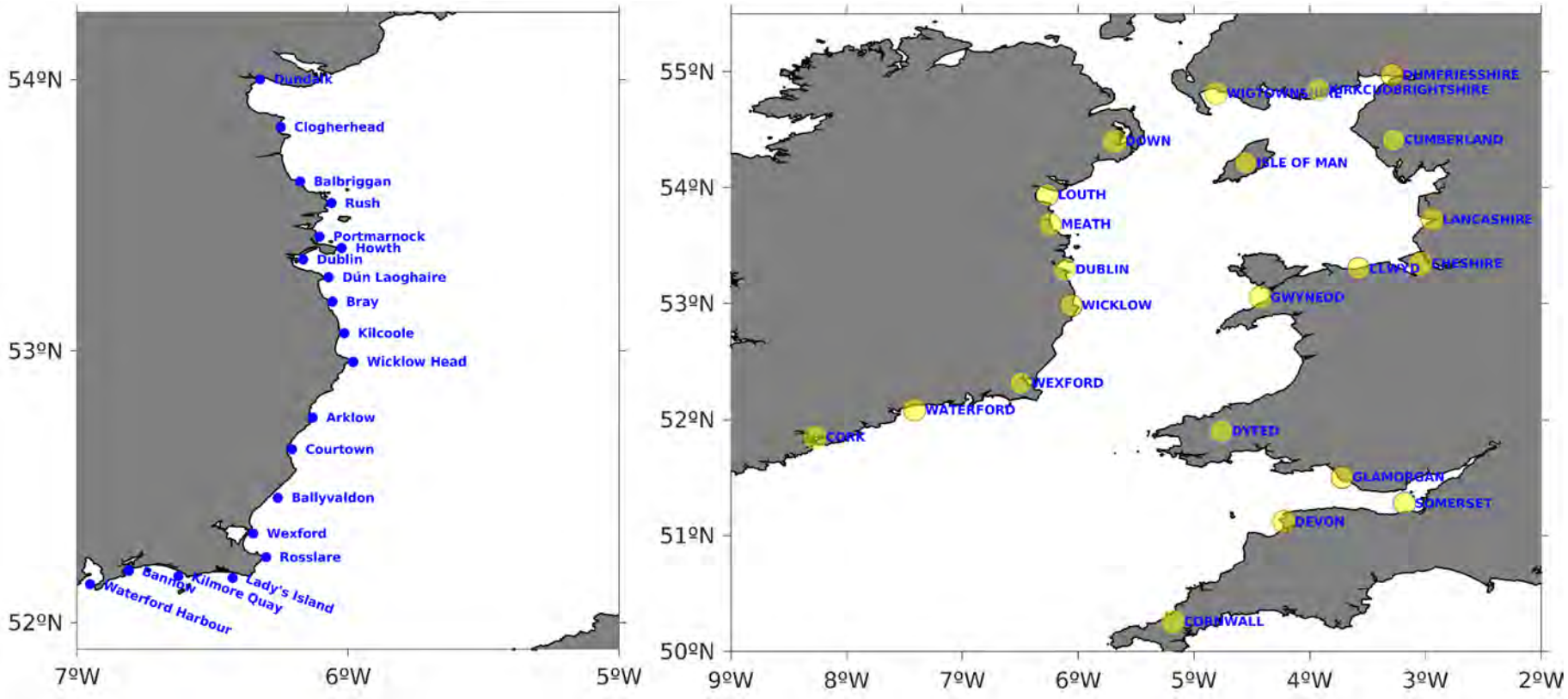
Recent OpenDrift test cases: experiments in the Irish Sea



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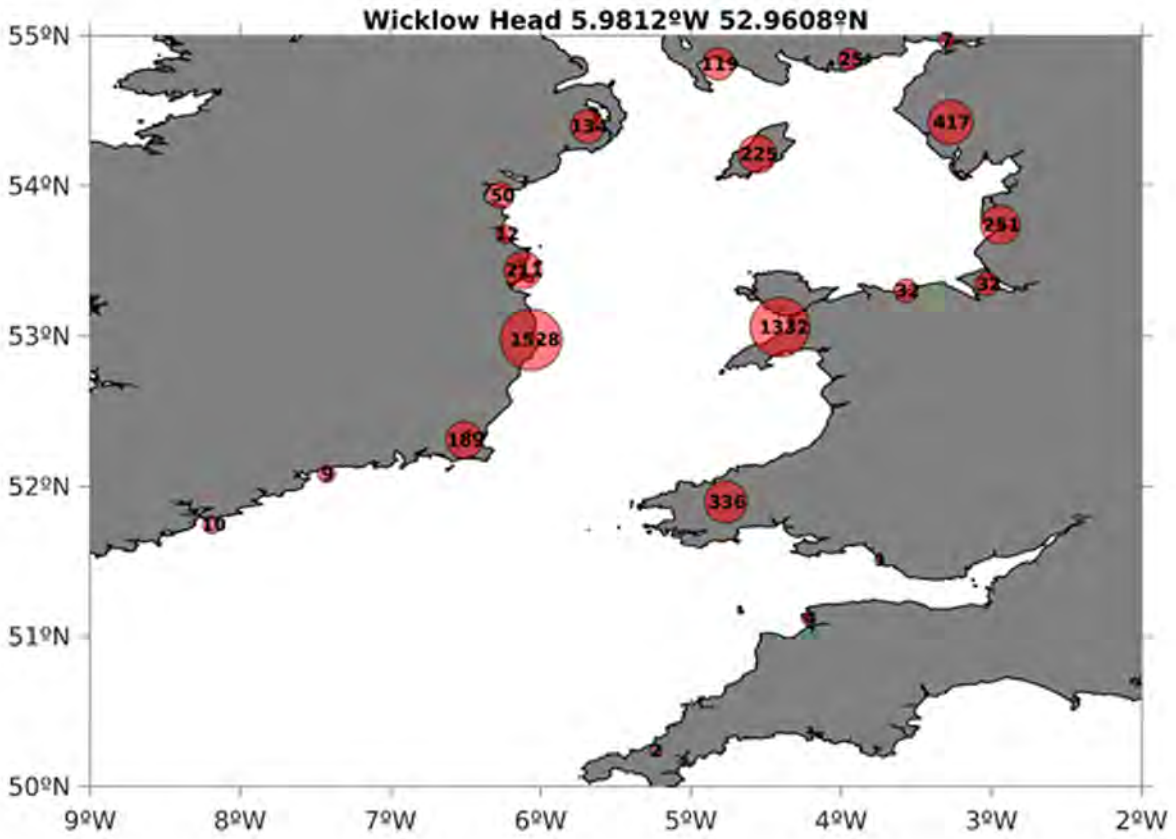
Recent OpenDrift test cases: experiments in the Irish Sea



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The new ADRIFT

ADRIFT

Marine Institute predicted sea surface tracking.

Enter New Project Start Location or drag marker

Latitude

53.256302

Longitude

-9.005189

Start Time

Apr 06 1:00 AM

Duration

12 hours

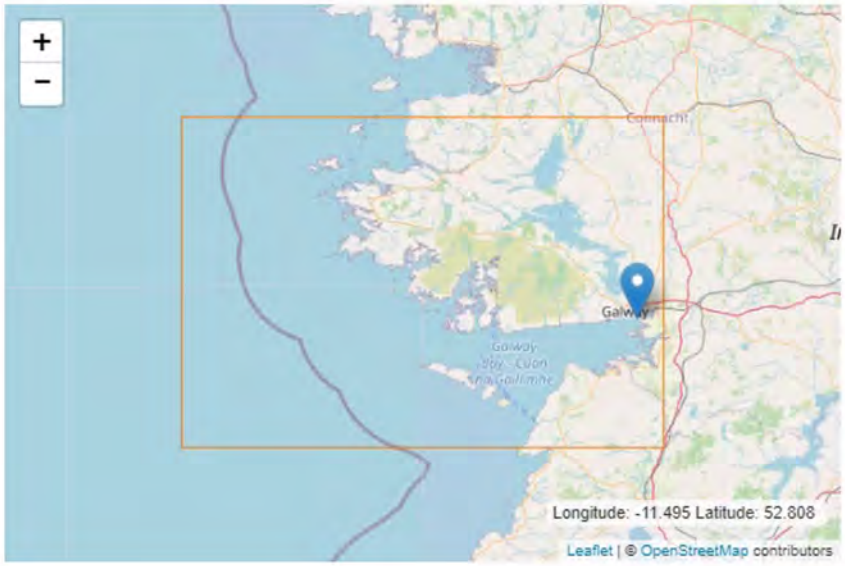
Radius 250 metres

Start (UTC) 2021-04-06T00:00:00Z
End (UTC) 2021-04-06T12:00:00Z

Drifter

PIW-1 Person-in-water (PIW), unknown state (mean values)

Submit Cancel



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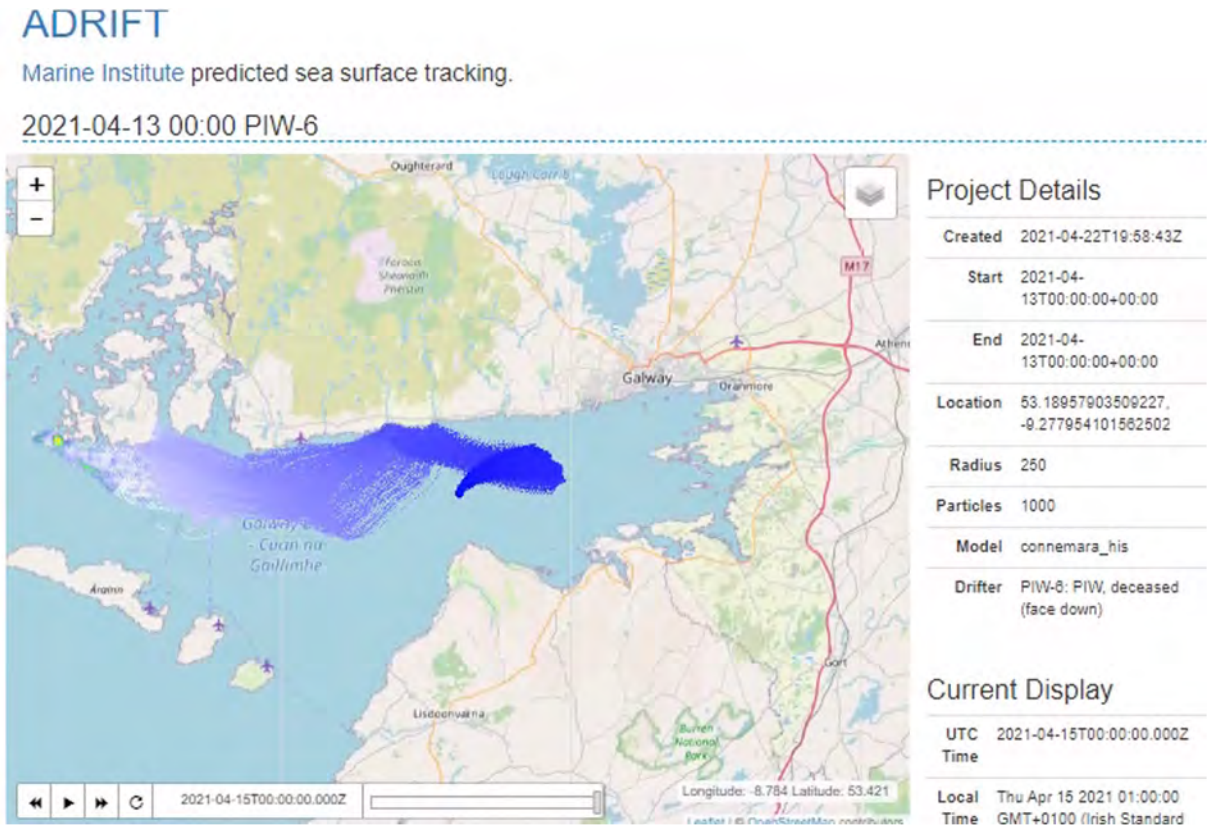
The new ADRIFT



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