CONSEIL CONSULTATIF POUR LES EAUX OCCIDENTALES SEPTENTRIONALES | NORTH WESTERN WATERS ADVISORY COUNCIL | CONSEJO CONSULTIVO PARA LAS AGUAS NOROCCIDENTALES

Minutes

NWWAC Focus Group Whelk

Virtual meeting via Zoom, 23 October 2025

1. Welcome from the Chair

The FG Chair Xavier Tétard opened the meeting by welcoming participants. The agenda was adopted. Apologies have been received by Dominique Thomas, John Lynch and Aodh O'Donnell.

The Chair reminded those who were not present at earlier meetings in December 2022, or who might not recall, of the context. He explained that in previous discussions within the Focus Group, a vessel length limitation of 16 metres for whelk fishing had been proposed, along with a minimum sorting grid of 22 mm and the requirement for vessels fishing for whelk in the English Channel to be equipped with Vessel Monitoring Systems. The Chair noted that since these proposals, scientific updates had been made, which Laurence Hégron Macé of Smel, would present later, and that national regulations had been implemented. At the time of the earlier exchanges, in 2022, there was no national framework for managing whelk fishing beyond the 12-mile limit in the Eastern and Western English Channel, although regional regulations existed within the 12-mile limit. He emphasised that the entire zone is now covered by management measures, including licensing and the application of the 16-metre vessel limit and 22 mm sorting grid, meaning that the European-level proposals are now reflected in French national practice. The Chair stressed that this context justifies continuing efforts to ensure alignment at a broader level.

Action points from the last meeting (05 December 2022)

1	Members agreed that the 2021 advice should be sent to the NWW Member States Group requesting a joint recommendation on whelk management in EU waters of ICES divisions 7d and 7e. They also agreed that this request should be sent in January, with the new Irish presidency starting.
2	The Secretariat will circulate next week an updated draft advice specifically addressing the NWW Member States with a request for a joint recommendation. The new advice will include an annex listing all available (or soon to be available) scientific evidence supporting the NWWAC management proposal.
3	Members will come back with comments on the advice and with sources of scientific evidence by 11 January.
	All the above points have been completed through the submission of the NWWAC advice on whelk management in the Channel on 02 February 2023.

Action points from the WG3 Meeting in Vigo (3 July 2025)

1	Secretariat to initiate the reestablishment of the FG Whelk
	Completed through the organisation of today's meeting.

2. Appointment of the new Focus Group Chair – Xavier Tetard & Alexandre Leclerc, CRPMEM

Moving on to the next agenda item, the Chari proposed that Alexandre Leclerc be nominated as the new Chair of the Focus Group. He noted that Alexandre is a member of the CRPM Bureau and a professional whelk fisherman. The Secretariat clarified that, due to the low number of members present at the meeting, the appointment of A. Leclerc will be conducted through a written procedure.

3. Discussion with Alexandre Leclerc (CRPMEM) on the management of the Whelk

The Chair then invited A. Leclerc to share his perspective on the current state of the whelk fishery. A. Leclerc explained that the meeting was an opportunity to relaunch the Focus Group, protect fishing zones, and engage with other stakeholders, particularly Irish colleagues, to understand how they manage their resources. He highlighted that climate change is affecting whelk populations and that cooperation is essential to safeguard the fishery and prevent the sudden arrival of large vessels that could cause significant economic impacts. A. Leclerc emphasised that discussions with other states are crucial to ensuring sustainable management and the continuation of small-scale whelk fishing activities.

The Chair added that while L. Hégron Macé 's scientific presentation would provide detailed data, it is already clear that the situation for whelk remains challenging, confirming the earlier findings of the Focus Group. He pointed out that a number of vessels on both the French and English sides depend on this species, and while current operations should be maintained, the conditions do not allow for further expansion. He stressed the importance of prudence and implementing management measures to safeguard the resource.

Pauline Stephan asked A. Leclerc whether, as a professional fisherman, he had contacts with English whelk fishers, either individually or through associations. A. Leclerc confirmed that he maintained contact with several English vessel owners, particularly those working near Fécamp, mainly to coordinate zone usage. He noted that communication is often facilitated by translation tools and that relationships have generally been positive. The Chair emphasised that understanding fishing activity and perceptions in other member states and third countries is important for coordination and sustainability. P. Stephan added that the UK GOV website publishes monthly or bi-monthly data on non-quota species, including whelk, which could provide useful information.

4. Discussion with Laurence Hégron MacéHégron Macé – Smel, Synergie Mer et Littoral (Slides)

The Chair noted that the presentation from L. Hégron Macé would help illustrate the points already raised and allow for the identification of additional topics for discussion.

L. Hégron Macé began her presentation by thanking the Chair and acknowledging that all the data and analyses she would present were the result of collective work by various partners over an extended period. She recalled that much of this work had been presented at the previous CC EOS in June 2020, which had led, as the Chair mentioned, to a number of proposals being initiated. L. Hégron Macé explained that her presentation would include some slides illustrating prior work, serving primarily as a guide to remind participants of previous findings, provide context, and introduce the CCLIMB'UP project, which had started a few months ago and will run until 2027. This project focuses on the impact of climate change in the English Channel and its effects on whelk and its exploitation.

L. Hégron Macé then provided a national-level overview of the whelk fishery. Looking at the English Channel–North Sea region, specifically divisions 7e and 7d, whelk remains in second place in terms of value but has dropped to seventh among principal species. In 2023, landings amounted to just over 7,500 tonnes, down from over 10,000 tonnes in 2022, representing a 25% decrease. However, the value of the catch has slightly increased in recent years, from 28 to 32 million euros, despite fluctuations driven by varying catch volumes, market conditions, and prices. L. Hégron Macé noted that the prices have generally stabilised somewhat in recent times, which the Chair agreed with.

Focusing on the Western English Channel, L. Hégron Macé highlighted that landings had remained around 10,000 tonnes for over twenty years, but recent years, particularly 2023–2024, show a significant decline, amounting to an estimated 69% decrease, resulting in just over 3,000 tonnes landed in 2024. The number of vessels has also decreased, from 130 in 2017 to 70 in 2024, a reduction of 46%, indicating that the sector is under considerable pressure and raising questions about its long-term viability.

L. Hégron Macé then discussed changes in fishing zones. Since 2013, there has been a notable shift in French vessels' areas of operation. Landings in the waters around Jersey have almost disappeared, decreasing from 1,400 tonnes in 2017 to about 150 tonnes in 2024. This shift has been partly driven by competition with other fisheries, such as scallop fishing near Granville, where whelk fishers may hold scallop licences and engage in scallop harvesting, explaining part of the mobility observed in fishing zones.

Turning to climate change, L. Hégron Macé reminded members of previous work presented in June 2021 under projects such as Buloclim and Bestclim, and more recently Mecanor, which had focused on whelk reproduction and aspects of gametogenesis under controlled environments. She noted that whelk occurs at the southern limit of its distribution in Normandy and northern Brittany, making the species highly sensitive to temperature, which affects spawning, hatching, gametogenesis, and adult mortality. Earlier studies under Buloclim also examined the geographical origin of whelk stocks, including sources from Scotland, Ireland, the Cotentin, and further south near Oléron, revealing a north/south gradient on life-cycle parameters (size at maturity). L. Hégron Macé highlighted a key hypothesis for the current study: whether climate change affects burrowing behaviour during the biological break (estivation), and if whelk is able

to burrow deeper during heatwaves, as there is limited or no data on this aspect. This will be addressed in the CCLIMB'UP project.

L. Hégron Macé briefly presented the timeline of previous research. The initial work began in the early 2000s and focused on sorting practices on board and the selectivity of fishing gear to ensure that no undersized whelks were landed. From 2009 onwards, the first investigations focused on monitoring the status of the whelk stock. Between 2012 and 2016, other work examined biological (reproduction) and socio-economic indicators, in particular the health of fishing businesses, which will continue to be updated as part of the CCLIMB'UP project. The Mecanor project (2022-2023) also focused on biological indicators. Initial models for assessing stocks with limited data were tested as part of the BESTCLIM and MECANOR projects. All of this work and its follow-ups led to MSC certification for the whelk fisheryin the western Cotentin region, but this was subsequently suspended in 2024as the stock declined sharply.

L. Hégron Macé then introduced the current CCLIMB'UP project (2025–2027), which has three main research axes. The first axis concerns the impact of climate change on key stages of the whelk life cycle, aiming to identify climate effects on species biology, with participation from Ifremer, the University of Caen, SMEL, and Comité Régional de Normandie. The second axis addresses fishery monitoring for sustainable resource management, continuing monitoring activities in the Western English Channel initiated since 2009. The objective is to co-develop sustainable, adapted solutions for fishing enterprises while protecting the resource. The third axis focuses on the socio-economic status of fishing enterprises, assessing business health with the support of a contracted partner, to explore ways to strengthen sector resilience.

L. Hégron Macé provided a brief historical overview of whelk fisheries, distinguishing between the Western English Channel and the Eastern Channel region. She explained that fishing activity in the Western Cotentin area is very long-established, with regulatory measures dating back to the 1980s. She noted that landings had been relatively stable for over twenty years at around 10,000 tonnes, but since 2018 there has been a pronounced decline. By 2024, the landings per unit effort (LPU), or DPE in French, had fallen to their lowest recorded level, with just 121 kilograms of whelk per fisherman per trip, leading to the suspension of the MSC eco-certification in that year.

In contrast, L. Hégron Macé explained that the Eastern Channel fishery is much more recent, developing progressively from south to north. She illustrated landings for three sectors: the Seine Bay and northern Cotentin, Seine-Maritime, and Boulogne in the Hauts-de-France region. She noted a peak in catches around 2018, followed by a decline and then a relatively stable pattern in recent years. She suggested that Alexandre Leclerc could provide his impressions for 2024 and, potentially, for 2025, even though the year is not yet complete. She further clarified that in Eastern Channel, the fishery's gradual development—beginning in 2007 in Seine-Maritime and reaching the northernmost zones in 2015—was partly linked to the redirection of fishing effort from declining flatfish stocks, particularly sole, toward whelk fishing.

L. Hégron Macé then outlined the methodology of the CCLIMB'UP project. She emphasised the combination of biological and fishery monitoring with controlled laboratory experiments investigating various life-history traits of whelk. She highlighted temperature monitoring, noting

that increasingly comprehensive databases are being developed, with data sharing and integration across institutions. She also described the analysis of catch data, the organisation of workshops to exchange and synthesise results, and socio-economic monitoring of fishing enterprises, all conducted within a holistic approach that builds on an already rich base of acquired data, while acknowledging that additional data collection is ongoing.

L. Hégron Macé then addressed the impact of climate change on whelk stocks, beginning with the climatic context. She noted that the whelk's distribution is already at the southern limit in the region, making temperature a critical factor. Multiple sources of temperature data are being collected or have already been collected by different organisations. These include satellite data and instrumented buoys, as well as long-term observation networks maintained by SMEL since the early 2000s. Additional data come from scientific campaigns conducted by Ifremer.

L. Hégron Macé described a participatory approach involving fishermen, through which temperature loggers are deployed on their traps. While the larger datasets generally cover surface temperatures (the first metre of water), these participatory sensors measure bottom temperatures, allowing comparison between surface and bottom thermal conditions across the Western Channel and Eastern Channel. Temperature measurements are being collected at daily, monthly, and annual scales to quantify variations, including monthly fluctuations in fishing grounds. Marine heatwaves are also being identified and characterised to assess anomalies, their duration, and synchrony between surface and bottom temperatures.

She illustrated this with temperature curves for 2022, highlighting marine heatwaves in red and light pink, which were particularly significant in the Western Channel that year. A further illustration showed a sensor deployed offshore from Granville that moves with the fisherman's fishing grounds rather than remaining fixed. She noted that decisions will need to be made in collaboration with partners about using fixed-point bottom temperature sensors, potentially in conjunction with instrumented buoys, managed by Ifremer and the University of Caen. Comparative temperature monitoring for 2024 and 2025 shows that 2025 warmed rapidly from April onwards, exceeding 2024 levels and experiencing longer-duration heatwaves, a development concerning for whelk stocks.

Using long-term datasets, Ifremer has analysed annual and seasonal temperature trends from the early 1990s to 2023, revealing a significant warming in the Normandy–Brittany Gulf of approximately 1.5°C over 40 years. Year-round warming is evident, with spring showing the most pronounced increases. Marine heatwaves have also become more frequent and longer, with ten events over the past eleven years, highlighting the compounding effect of episodic events on long-term warming and the potential stress on the resource.

L. Hégron Macé then examined the consequences for whelks. Using an 18°C threshold, above which whelks enter estivating behaviour, she explained that prior to 2000 such temperatures were rarely reached in summer. From 2018 onwards, around 50% of summer days exceed this threshold, subjecting whelks to longer periods of thermal stress that can affect biological activity. In winter, temperatures above 9.5°C are critical for reproduction and spawning activity. Historical analyses indicate that prior to 2011, approximately 60% of winter days fell below this threshold,

whereas by 2022–2024 this dropped below 10%, indicating milder winters and a narrowing reproductive window.

To assess the impact on reproductive maturity, the project has conducted in situ sampling at key points throughout the year—February, April, June, August, October, and December. October data have been collected for both Eastern Channel and Western Channel regions. Maturity stages are assessed through biometric data such as size and weight, visual observation of reproductive organs, and more detailed histological analysis. This allows determination of the size at which 50% of whelks reach sexual maturity (L50) and the reproductive effort, measured by gonad thickness and area. These analyses will be integrated with temperature conditions and heatwave impacts, updating previous studies conducted in 2008 for the Western Channel and since 2020 for Eastern Channel under the Mecanor project. Preliminary figures illustrate L50 sizes, noting that data for both sexes are currently combined and may differ between males and females.

L. Hégron Macé continued by discussing a separate line of research that has recently begun. Within the project, the focus is on the effect of temperature on the biological cycle of the whelk, but this is conducted in a controlled environment. These experiments are planned specifically for the English Channel because the procedures are quite complex, and the aim is also to update previous datasets. Since 2015–2016, climatic conditions have continued to change, with phenomena such as marine heatwaves becoming more pronounced, prompting a deeper exploration of temperature effects.

The experimental setups are already in place and operational at SMEL, allowing the team to study how temperature influences spawning, gametogenesis, and adult mortality in whelks. The design of these experiments is being refined in collaboration with Ifremer, Caen University, and other project partners. Different scenarios are being tested, including cold versus warm winters and moderate versus extreme summers, using 2021 and 2022 as reference years. Parameters such as average temperature, thresholds, intensity, and duration of temperature exposures are being finalised before experiments commence. Physiological condition markers have also advanced, enabling a more precise tracking of gametogenesis, including now in female whelks. Previously, analyses were limited to males due to the difficulty in sexing animals without sacrificing them, but new techniques based on the use of peptides allow accurate male sex determination from the outset, ensuring balanced male and female samples.

A new aspect of the project focuses on whelk behaviour in relation to temperature. This will also be conducted in controlled environments at SMEL using specialised equipment and accelerometers, to track whelk movement within the sediment. The experiments will simulate heatwaves and assess behavioural responses in different sediment types, recording sediment and water temperatures. This complex experimental approach aims to understand how whelks adapt their burrowing behaviour to environmental stressors.

L. Hégron Macé then addressed growth studies. Previous research conducted in the western Channel (BESTCLIM) and in the eastern Channel, (Mecanor) project, had examined growth usingopercula and/or statoliths, although extracting statoliths had been difficult. Recent improvements now allow for damage-free extraction statoliths, providing more accurate growth

curves related to age, size and annual growth rates, and allowing for the assessment of the effects of temperature on growth.

Turning to fisheries monitoring, the focus has been on long-term scientific campaigns since 2009 in the western Channel, with an aim to maintain consistent data collection on catch per unit effort (CPUE) and population structure. Prior to 2021, surveys were independent and spread over multiple locations, following fishing activity to maximise coverage. Since 2021, a single annual survey revisits fixed geolocated stations, involving three selected vessels and full collaboration from fishermen, providing high-quality, standardised data. In the eastern Channel, a similar permanent monitoring programme is now being established, with the first 2025 spring survey already completed. Analyses are conducted onshore from well-documented samples, ensuring data integrity despite the logistical intensity of the operations.

L. Hégron Macé highlighted that new stock assessment models, developed by Ifremer, will use these data to evaluate whelk stocks, taking into account the limited catchability inherent in pot fisheries. These models will consider age and size distributions, aiming to provide precise and operationally relevant assessments for adaptive resource management in both western and eastern Channel stocks.

Selectivity studies were also discussed, particularly the need to sort whelks on board to meet the minimum commercial size of 45 mm. Past work had increased grid spacing to 22 mm, but ongoing research explores further increases to 24 mm, assessing both biological and socio-economic impacts. Preliminary trials, conducted as part of a six-month internship, involved sequential sorting through 22 mm and 24 mm grids, with results showing that a 24 mm grid allows retention of larger, reproductively valuable individuals, while smaller whelks are rejected. This adjustment could boost reproductive biomass and support resilience to fishing pressure and climate change, though it comes with estimated average production and economic losses of around 16.5% and 18.1% respectively. Compensation for these losses could begin in the first year through natural growth, but measures to support the fishing sector would be necessary.

Consumer acceptance was also addressed. While there is a common perception that consumers prefer smaller whelks, a recent survey conducted during the Granville festival in early October challenged this assumption. Out of 182 respondents, over 30% preferred commercially sized 55 mm whelks, more than 20% preferred 51 mm, and less than 10% preferred 45 mm. These results suggest that larger sizes may be more acceptable than previously thought, providing useful guidance for discussions with fishermen regarding minimum size regulations.

Finally, the socio-economic status of fishing enterprises forms the last axis of the project. The CRPMEM is analysing accounting and operational data from a reference population of whelk fishers. The aim is to assess costs, profitability ratios, and the overall health of businesses, comparing with previous studies to understand trends and identify potential measures to support adaptation to ongoing changes. The goal is to develop sustainable, context-specific solutions for the sector. L. Hégron Macé concluded by noting that further discussions on these topics would continue with all stakeholders present.

The Chair opened the debate by emphasising the comprehensive nature of the approach presented, referring to ongoing projects and knowledge already acquired, particularly the impact of climate change, which is resulting in lower yields and production. He pointed out that this situation had led to the loss of the MSC label for whelk from western Cotentin, illustrating the current limitations of sustainable management and justifying a certain degree of caution. He then invited participants to ask questions or make comments.

P. Stephan enquired about links with British whelk management plans. L. Hégron Macé explained that she had participated in international exchanges within the framework of ICES working group on bulot enabling the sharing of knowledge on this species, the project carried out and discussions on the harmonisation of scientific protocols, particularly in terms of mapping and stock status. The Chair emphasised the importance of relying on the ICES working group on whelk to fill data gaps, in particular by compiling the information available from the British side in order to objectively assess the situation for the CC.

Ilaria Bellomo asked clarification on the loss the MSC label. L. Hégron Macé took the floor to clarify that although MSC data had been collected for several years, it was not currently possible to maintain certification due to the decline in the resource and the high cost of monitoring. The Chair added that the suspension of MSC certification was also a strong signal of the critical situation facing whelks, despite the management measures already in place. He highlighted the exceptional drop in production in recent years and the need to sound the alarm. L. Hégron Macé emphasised the gap between scientific and professional timeframes, explaining that certain biological indicators showed signs of thermal stress on whelk reproduction long before the impacts on fishing were visible.

I. Bellomo then queried about the feedback and perspectives from the fishing operators on the proposal to increase the minimum catch size. L. Hégron Macé indicated that fishing operators were concerned about the potential economic loss, but that a gain in reproductive biomass was expected. Communication, educational and explanatory work was necessary to gain the support of fishers. A. Leclerc confirmed that awareness-raising among fishers had begun several years ago and that, over time, the decline in resources had convinced the majority of them of the importance of these measures. L. Hégron Macé added that the involvement of fishers in data collection through participatory science strengthened the link between research and professional practice.

The Chair thanked L. Hégron Macé for her detailed presentation and fruitful discussion with members.

5. AOB & Summary of actions agreed and decisions adopted by the Chair

No points were raised under Any Other Business.

Action points:

1	FG Members to appoint Alexandre Leclerc (CRPMEM), proposed by Xavier Tétard, as the new Focus Group Chair via written procedure.
2	Secretariat to circulate to FG members both the NWWAC advice on whelk management in the Channel (dated 2 February 2023) and the corresponding European Commission reply. These documents will help clarify the Commission's position and identify the data gaps highlighted at that time.
3	FG Members / Secretariat to collect new data from the sector and management practices currently in place in other countries, particularly the United Kingdom, but also Ireland.
4	Secretariat to consult FG members regarding their interest in engaging with ICES to present updated data and information on whelk. The aim is to understand existing knowledge gaps, ongoing ICES work, and whether any new proposals on whelk management are under consideration or could be submitted to the Commission.
5	Secretariat to further liaise with Laurence Hégron Macé (SMEL) for updates on the CCLIMB'UP project.

Solène Prévalet supported the request within the AC and reiterated the continued interest in this matter. The Chair thanked the participants, Secretariat and the interpreters, and closed the meeting.

Participants

NWWAC Members	
Alexandre Leclerc	CRPMEM
Solène Prévalet	FROM Nord
Pauline Stephan	CNPMEM
Xavier Tethard	CRPMEM
Observers / Speakers	
L. Hégron Macé	SMEL
NWWAC Secretariat	
Ilaria Bellomo	
Mo Mathies	