# Report by the Welsh Partnership of MPA's

# on behalf of Welsh Government

# Review of Marine Codes for recreational water users and commercial wildlife trip boat operators in north and west Wales



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## Section 1: Introduction

Marine Protected Areas (MPAs) cover more than 35% of Welsh territorial waters; a well-managed network of MPAs can enhance the health of the marine environment as a whole, helping it to recover from past impacts and mitigating the effects of current pressures. MPAs are of central importance to marine conservation; European Marine Sites (EMS) make up the majority of our current MPA network in Wales; along with RAMSAR sites, SSSI's, UNESCO Biosphere reserves etc. European Marine Sites were firstly designated and protected under European legislation, this legislation then became ratified and adopted into UK law. These sites include Special Protection Areas (SPAs) which are protected for bird species, and Special Areas of Conservation (SACs) which are designated for other habitats and species.

The MPAs in Wales are multiuse sites, with the management of activities being defined by the features and objectives of the site. Management authorities have established Relevant Authority Groups (RAGs) a voluntary working collaboration between the authorities with management responsibilities to deliver their obligations for the site. Special Area of Conservation (SAC) Officers work closely with the RAGs in the management of some of Wales' largest MPAs (SACs). There are fifteen SACs within Welsh marine waters, including two cross border sites with England (the Severn Estuary SAC and the Dee Estuary SAC). The Welsh Partnership of MPAs was formed to ensure coherence and collaborative working across the Wales MPA network on sites where SAC Officers are in post, these are; Pen Llŷn a'r Sarnau SAC, Cardigan Bay SAC, Pembrokeshire Marine SAC, Carmarthen Bay and Estuaries SAC, and a cross border site – the Severn Estuary SAC. The SAC Officers from these five sites work together closely and collaboratively to share resources, good practice and to ensure consistent messaging between the sites and across the network.



*Figure 1-0: Map of Special Areas of Conservation (SAC)/Special Protection Areas (SPA) around Wales, JNCC* 

# Section 2: Summary

Disturbance of marine mammals and seabirds from water user activity is recognised as being an issue in both the Cardigan Bay and Pen Llŷn a'r Sarnau SACs. Adverse impacts on these animals, particularly the internationally important semi resident population of bottlenose dolphins, include deliberate acts of disturbance; physical injury from collisions with high-speed craft, and most frequently, the subtler effects of constant low-level disturbance to dolphin behaviour resulting from the number of water user interactions with animals that can contribute to net energetic loss. For example, water user interactions that cause the animals to stop feeding and disperse, to take longer and deeper dives, or changes in behaviour such as leaping and tail slapping, may reduce resting time, reduce prey consumption and increase time spent travelling in searching of prey. This type of disturbance can come from all types of water craft; commercial wildlife trip boats, recreational motor boats and jet skis, canoes and stand up paddleboards. The presence of bottlenose dolphins in Cardigan Bay has proved a great visitor attraction; as there are only two places in the UK that support a semi-resident population. The importance of tourism development along the Ceredigion coastline is identified in a number of Welsh Assembly Government Strategies, including the Wales Spatial Plan and the Wales Tourism Strategy.

Relevant authorities (collectively known as the Relevant Authorities Group (RAG)) are responsible for exercising their statutory duties to secure compliance with SAC objectives; this includes undertaking appropriate assessments on plans or projects deemed to have a "significant effect" on site features and making sure that activities that are under their management do not have an adverse effect on these sites. These assessments ensure that mitigation action is identified to prevent operations having an adverse effect on site integrity and the features of the site.

# Section 3: Historical Context of Marine Codes in North and West Wales

The inshore waters of Ceredigion are recognised as being of international importance for wildlife and are home to Europe's largest population of Bottlenose Dolphins. Management of water users to limit adverse impacts on Cardigan Bay's protected bottlenose dolphin population has been taking place in Ceredigion since the early 1990's when Ceredigion County Council (CCC) established the Marine

Heritage Coast (MHC). CCC has pursued an approach of raising awareness and providing advice via a Marine Code. The Ceredigion Marine Code was developed and promoted via information at launch sites, mooring-holder mail-outs, leaflets, and in the annual tide-table booklet. In 1996 the status of the voluntary MHC changed when the area was included in the larger statutory Cardigan Bay Special Area of Conservation (SAC). This SAC, plus the Pen Llŷn a'r Sarnau SAC, cover approximately 70% of the Ceredigion coastline. Bottlenose dolphins and Atlantic grey seals are features of both SACs. The Marine Code for commercial and non-commercial users continued to be the main tool for managing water user activity within the SAC. The Ceredigion Marine Code was originally established by Ceredigion County Council as part of its duties as a member of the Cardigan Bay SAC RAG. The Cardigan Bay SAC Management Scheme identified the need to provide interpretation of over ten years of compliance data and to promote education that would generate appreciation, understanding and a commitment to conserve the features of the SAC.



Figure 1-1: Ceredigion Marine Code

Authorisation given by Cabinet in 2002, permitted Officers to pursue measures to strengthen the Marine Code, and to prepare a review of the seaside pleasure boat byelaws and harbour issues for further consideration. Accordingly, Officers developed the Ceredigion Recreational Boating Scheme for an Objective One bid (Support for Recreational Opportunities and Management of the Natural Environment) to cover eight launch sites along the length of the Ceredigion coastline as well as the inshore waters of the County. Results in 2002 of the Council's monitoring study of recreational boating traffic along the MHC had indicated that the voluntary Marine Code was having a limited effect in terms of improvements in the separation distance from any dolphins encountered and stopping rates when the animals were in close proximity. It was clear that further work was needed to communicate and promote the Marine Code. Cabinet considered this scheme in 2003 and resolved an allocation of £93k contribution costs. However, the scheme did not secure funding under Measure 5:8, and Officers therefore revised the scheme and obtained reduced grant aid in 2004 from the Crown Estate Marine Stewardship Fund to commence Phase One. Phase One of the scheme was the establishment of the 'Cardigan Bay Boat Place', now the Marine Protected Area Visitor's Centre on New Quay harbour wall. In May 2003, Cabinet had authorised Officers to utilise an under-used Council owned building on New Quay harbour to set up a small marine information centre aimed at skippers and members of the public. The Crown Estate grant funded the development of interpretation material and interactive games to help promote compliance to the Marine Code and to ensure that water users launching from Cardigan Bay would know about the presence of marine wildlife and the issues related to disturbance by watercraft.



Figure 1-2: The establishment of the 'Cardigan Bay Boat Place'

The Marine Code was initially promoted by the CCC Conservation Officer and MPA Officer and from the visitor's centre on New Quay harbour wall. Several staff changes in MPA Officer took place over this time, due to the post being grant funded year on year. From 2008, promotion of the Marine Code was supported by boat patrols between May and August; conducted by the MPA Officer between 2008 - 2015, and by a dedicated water ranger in 2016 - 17.



Figure 1-3: The Cardigan Bay SAC patrol boat

Information panels about the SAC and the Marine Code are present at launch sites.



Figure 1-4: Ceredigion Marine Code interpretation panels installed at launch sites

Historically, 8 knot speed limit buoys were put out during the season to highlight the voluntary speed restriction and importantly, to encourage water users to travel on the seaward side of the buoys in the wildlife sensitive areas containing the breeding sea bird colonies and seal haul-out sites. These have not been put out since 2019, due to the loss of the majority of the buoys in 2017-18 and lack of funding to replace lost buoys.

In 2015, the Cardigan Bay Boat Place was renamed the 'Marine Protected Area Visitor's Centre', new panels and additional binoculars were installed, along with the continued delivery of 7 day a week opening and delivery of events to promote the Marine Code and raise awareness of the SAC.

Croeso Welcome wednesday 12th Aug Ardal Forol Warchodedig Bae Ceredigion Canolfan Wybodaeth a Gweithgareddau Cardigan Bay Marine Protected Area Our favourite Place, como Information and Activity Centre back every year Abby & Betsi 13 AUF THURSDAY BACK AGAIN , NEVER FULL TO ENSOY THIS PLACE. Bernard, Maureen, great, bobbie Still Great Place, Kedo . Works lave coming to New gray and Convery in have to See it we can see the dolphens, ywyd gwyllt morol arbennig Bae Ceredigion Please come inside to discover more about Cardigan Bay's special marine wildlife Keep up the excellent another. Sora, Currection) Thursday 13 aggist -It Was C001 26-10-15 very Friedly Still, really good with children, especially on the learnt that you must coastel Sildlife and must not distable MANY THANKS CPANIS M. could come ton 50 They you would have and much 26-10-15 better time. larely time. Friendly Staff, Nych lared waking a cross and her baby brother litered to Divie - chu Bolphin. Filen, Nyah & Logan Evans Metanie was anazing, her entrusiasm for the marine wildlige and her knowledge was great ther determination to find a dopnin for Sumayyah was abore & beyond.

THANKYOU!

2nd August 2015 A great place for the public Depinitely needs more finding e Sea 3615 The Johnson family really appreciated being, able to use your binnoconcirs, and loved the compter. James family Newport Swales.

*Figure 1-5: New 'welcome board' in the Marine Protected Area visitor's centre and examples from the visitor's book, showing the importance of education and engagement* 

Since the end of the 2017 season no funding has been available for a water ranger post. The code has continued to be promoted by the MPA Officer, through the Cardigan Bay SAC website, Ceredigion County Council website, Harbour Policy and CCC social media; from the Marine Protected Area Visitor's Centre on New Quay harbour wall, and by speaking to water users launching from New Quay and educating those water users not following its recommendations. The Marine Code is distributed to all mooring holders and published in the CCC tide table booklet. During the summer season (March-October) a significant amount of the MPA Officer's time is spent on promoting and monitoring the Marine Code. Lack of funding for appropriate levels of staff time impacts on the ability to deliver adequate promotion and enforcement of the Marine Code. In the past, the visitor's centre, Dolphin and Porpoise Watch, public events and educational activities, and monitoring and promotion of the Marine Code were managed by both a full time MPA Officer and a full time education ranger; collectively equivalent to 10 days of staff time per week. Due to staff changes, this was then replaced, and the budget cut, to a MPA Officer post of four days a week, and a seasonal water ranger for 24 hours a week. Further budget cuts and a lack of external funding has resulted in delivery solely by the MPA Officer; who is contracted for just 29 hours a week. The provision of additional essential cover relies on the MPA Officer working additional hours each week throughout the season. The effectiveness of the Marine Code is monitored through the Dolphin and Porpoise Watch project. The Ceredigion Dolphin and Porpoise Watch project is instrumental in enforcing and monitoring the Ceredigion Marine Code. Dolphin Watch was established in 1994 in response to a community-led initiative that raised concerns that perceived increases in powered craft activity may have potential adverse effects on the local bottlenose dolphin population. The aim was to obtain further information on the relationship between cetacean site use and boat traffic, this data then helped to guide future management of the then recently designated voluntary Marine Heritage Coast (MHC). The project's creation aimed to encourage local people to participate in monitoring the dolphins, to both build support for the MHC and to raise public awareness of the issue of boat disturbance. Dolphin Watch has now completed 28 years of data collection.

The key aims of the project are to:

- Monitor the presence of bottlenose dolphins to improve our understanding of bottlenose dolphin site usage and to monitor trends in dolphin occurrence
- Monitor levels of boat traffic to aid coastal zone management and to assess the effectiveness of the Marine Code
- > Investigate interactions between bottlenose dolphins and boats
- Increase public awareness and appreciation of the marine wildlife in Cardigan Bay

Volunteers help to collect important data that is vital to managing the boat traffic in the Cardigan Bay SAC. These volunteers form a dedicated team; the value of volunteers being involved in the landbased monitoring programme is immense. Not only do they provide the Council with a long-term data set on the relationship between bottlenose dolphin and harbour porpoise site usage and boat traffic and feedback on the effectiveness of water user management in a robust, scientific manner; they are also key to helping to raise awareness. Local skippers have also become accustomed to seeing the Dolphin Watch volunteers at these sites every summer. Monitoring is conducted between 1st March and 31st October by conducting two hour watches at eight locations along the Ceredigion coast – Borth, Aberystwyth, New Quay Harbour, Bird's Rock, New Quay, Ynys Lochtyn, Aberporth and Mwnt. In an average year, approx. 1375 watches are completed, equivalent to over 2,700 hours of effort. This project was renamed Dolphin and Porpoise Watch in 2018 to raise the profile of harbour porpoises in Cardigan Bay. It is important to note that at the New Quay harbour site, volunteers from the CBMWC are instrumental in monitoring compliance with the Marine Code and contribute significantly to the data collection and consequently, the effectiveness and success of the project.



Figure 1-6: Dolphin and Porpoise Watch volunteers and training new volunteers

In the first ten years, Dolphin Watch data demonstrated that the Council's approach was working; improved trends in boats complying with the Code were recorded, along with the evidence that shows that compliance with the Marine Code does reduce the risk of disturbance to animals. However, in the last ten years, the significant increase in both wildlife trip boat traffic and recreational users, has placed vastly increased pressure on the animals; while compliance with the Marine Code has been decreasing. In January 2022, to encourage stakeholders and the public to report instances of disturbance, the MPA Officer added a disturbance reporting page to the Cardigan Bay SAC website: <a href="https://cardiganbaysac.org.uk/disturbance/">https://cardiganbaysac.org.uk/disturbance/</a>

In 2016 the Pen Llŷn a'r Sarnau SAC Officer secured funding to develop and launch the Gwynedd Marine Code; this Code used the already established Ceredigion Marine Code as a template and is aimed at all recreational water craft. In 2017 further funding was secured by the PLAS SAC Officer to develop Marine Codes for Anglesey and Conwy, again using the Ceredigion Marine Code as a template. The North Wales Marine Codes used the same advice on distances and utilised the existing infographics. They apply to all recreational water users. However, no contact number is provided for reporting non-compliance. The development of all three Codes was led by the PLAS SAC Officer in partnership with a number of organisations including Local Authorities and The Welsh Fishing Association. A number of stakeholder workshops were also conducted across the three counties to ensure stakeholders could input into the process and also to raise awareness of the issue of disturbance and the need for Marine Codes. The three Marine Codes are available from the PLAS SAC and all three Local Authorities. The Codes have been integrated into each Local Authorities boat registration schemes and a copy is sent out to all those that register to launch in these counties. The Code is also promoted at launch sites across the three counties by both Council staff and other organisations such as the National Trust and Wildlife Trust. The Codes are also promoted widely across PLAS and partner social media platforms. The launch of the Operation Neptune project in 2016, provided a reporting system for infringement of the Marine Code in Abersoch, Gwynedd. The aim of this campaign is to promote the responsible and safe use of marine craft and inform the public of the best way to report irresponsible behaviour on the Llŷn coastline. The campaign advises people to call 101 or report incidents to on-duty wardens. In 2019 the PLAS SAC collaborated with the North Wales FLAG to promote the Marine Codes around the North Wales coast. The SAC Officer and the FLAG produced small information panels installed near launch sites to remind people to protect wildlife by following the code and noted three simple messages. Stickers were also produced, aimed at recreational vessels such as kayaks and jet skis; to promote the code and communicate the key 'Keep your distance' message.



Figure 1-7: Small panel installed at launch sites (PLaS SAC)



Figure 1 8: Gwynedd, Conwy and Anglesey "Love them from afar' Marine Code sticker

The Conwy and Anglesey Marine Codes were launched in 2017, again using the Ceredigion Marine Code as a template. They apply to all recreational water users. However, no contact number is provided for reporting non-compliance. As with Gwynedd Council and the Gwynedd Marine Code, Anglesey and Conwy Councils have integrated the Marine Codes into their boat registration scheme.





Figure 1-9: Gwynedd, Conwy and Anglesey Marine Codes

# Section 4: Methodology

The original Ceredigion Marine Code (last updated 2004) provided recommended guidance regarding keeping a distance from animals (adopted by Gwynedd, Conwy and Anglesey):

- Avoid unnecessary noise near animals and birds.
- Keep clear of birds resting or feeding on the sea.
- Do not enter sea caves in seal pupping season (1st August to 31st October).
- Keep 100m from cliffs from 1st March to 31st July.
- Avoid disturbing animals with their young.
- Do not touch, feed or attempt to swim with marine mammals.
- Do not approach within 100m of marine mammals.

The Marine Code also highlighted sensitive areas such as headland and reefs, including those found at Mwnt, Aberporth, Ynys Lochtyn and New Quay, indicating they are very important feeding areas for dolphins and porpoises.

Feedback from water users indicated that the Marine Code needed to be presented more clearly and simply. The Code also needed reviewing and updating; since its creation in 2004 the level of water use, by both recreational water users and commercial wildlife trip boat operators, has increased significantly. An issue that became even more apparent in 2020-21, with the increase in 'staycations' due to the Covid 19 pandemic.

The MPA Officer also identified a discrepancy between the text and the infographic on the main published form of the original material. The original text version of the Marine Code stating a 100 metres distance for all marine mammals, while the infographic indicated a 50 metres distance for seals and birds, causing confusion for water users; furthermore, despite the stipulation in the text, water users default to the 50 metres indicated in the infographic. This information needs to be as clear and simple as possible to be most effective.



Figure 2-0: Text and infographic; original Ceredigion Marine Code

#### Additional information on the Ceredigion

Marine Code is available at the Ceredigion harbour website. The site outlines the Ceredigion Harbour policy including local by-laws and provides details on the Ceredigion Marine Heritage Coast, Cardigan Bay SAC and PLAS SAC. It states:

Do not interfere with seals or their pups on the beach. Please leave them alone as any attempt to approach them may cause them distress Control dogs and keep them away from seals

Birds keep 100 metres out from cliffs in the breeding season

#### Do not sail directly towards rafts of birds nesting or feeding on the sea Please avoid unnecessary noise close to cliffs

#### https://www.ceredigion.gov.uk/resident/travel-roads-parking/coast-harbours/

Furthermore, a distance of 100m for all marine mammals and seabirds complies with current best practice and with national (UK) distances for recreational water users such as set out in Operation Seabird. Operation Seabird is a partnership initiative originally developed around the Flamborough Head European Marine Site (EMS) due to the volume of wildlife disturbance caused by recreational activities. The operation Seabird framework is intended to be used by coastal managers and regulatory bodies as a guide for establishing Operation Seabird activities in other regions.



Figure 2-1: Operation Seabird Code

In February 2022, as part of a Welsh Government funded review, the Welsh Partnership of European Marine Site Officers, led by the Cardigan Bay MPA Officer launched a consultation to seek views on the Marine Codes in Ceredigion, Gwynedd, Conwy and Anglesey. To gain insight on the public / stakeholders perception of Marine Codes and their benefit for wildlife, and to gauge the appetite for change. 162 questionnaire responses were received to the Ceredigion Questionnaire; 36 responses were received to the Gwynedd, Conwy and Anglesey questionnaires.

In Ceredigion, the Marine Code questionnaire was sent out to:

Partners – the Wildlife Trust / Pembrokeshire Coast National Park Stakeholders – commercial wildlife trip boat operators and water sports centres The Cardigan Bay SAC RAG All mooring holders in Ceredigion Promoted by Ceredigion County Council press office on social media

In Gwynedd, Conwy and Anglesey the Marine Code questionnaire went out to the following:

PLAS Relevant Authorities Group PLAS Liaison Group PLAS Summit to Sea contacts General contacts (National Trust, Wildlife Trust etc) Marine Code Aberdyfi and Abersoch workshop contacts Local Authorities (Maritime teams, Biodiversity Units and Business / Tourism Units) PLAS social media platforms Promoted by Ceredigion County Council press office on social media Awareness of the Cardigan Bay SAC amongst respondents was high at 86%. 97% of those would be able to explain why it exists. 86% think wildlife benefits from a Marine Code. Only 3% felt there was no benefit.



*Figure 2-2: Ceredigion Marine Code Questionnaire; responses regarding wildlife restrictions* 

62% of respondents felt that the Marine Code is not promoted appropriately. The responses overwhelmingly requested: more and larger signage at key points where they can be easily seen by water users, a higher profile on social media, marine app etc. More proactive promotion by the harbourmasters to mooring holders and people launching water craft.

62% of respondents also felt that the Marine Code is not enforced appropriately. Respondents overwhelmingly expressed frustration at a lack of policing and enforcement of the Marine Code and requested: more policing and enforcement, tougher action on offenders, reinstatement of the patrol boat, and more proactive enforcement by the harbourmasters to mooring holders and people launching water craft, particularly from New Quay.

When asked "Would you like to see greater seasonal restrictions regarding proximity of vessels to cliffs with colonies of breeding sea birds?" 54% responded Yes, 27% - No and 19% - Don't know. 129 respondents gave long answers, overwhelmingly favouring tighter restrictions due to seabird population declines and the number and frequency of vessels in these areas, and their proximity to the cliffs. Respondents mentioned the wildlife trip boats as being too many in number, getting too close, too many trips, at least one trip boat every ten minutes.

When asked "Would you like to see greater seasonal restrictions regarding proximity of vessels to seal-pupping beaches and caves?" 65% responded Yes, 21% - No and 13% - don't know. 138 long answer responses were received, again overwhelmingly wanting greater restrictions, such as increased distances, no-stopping areas, and rigorous enforcement.

Respondents did not favour general guidance based on animals' behaviour, which was viewed as too open to interpretation, expressing a preference for stipulated distances, no stopping areas etc. 64% felt that Wildlife Trip boat operators should have an accreditation scheme, some long answer responses assumed they were already licensed or expressed surprise that this was not already in place. Respondents felt this was important as the trip boat spend the most time on the water, the frequency of trips, that trip boats are seen too close to animals, to model good behaviour to other water users, to revoke accreditation if the Maine Code was not followed.

In Gwynedd, Conwy and Anglesey the Marine Code questionnaire received 35 responses, 83% knew about the Marine Code, and 83% also felt that wildlife benefits from a Marine Code.

59% of respondents stated that the Marine Code need to be promoted more, and only 5% felt it was enforced appropriately. Responses were very similar to those received in Ceredigion, requesting a presence at launch points, greater penalties for breaches and on the water patrols.

65% wanted greater restrictions near breeding birds, 71% felt greater restrictions were needed at seal pupping and resting sites.

67% would like to see an accreditation scheme for wildlife trip boat operators, and again like Ceredigion, many had assumed they already needed to be licensed.

## Section 5: Discussion

Dolphin and Porpoise Watch data shows that boat traffic levels already suppress dolphin site use at New Quay. Due to the high volume of boats in the New Quay Harbour area, a factor unique to this site, boat counts per watch time and dolphin occupancy per watch time are investigated to examine whether there is a correlation between the number of boats and site use by bottlenose dolphins (Heath and Vaughan, 2016, 2017, 2018).

The 2016 report showed that the watch between the hours of 1300 – 1500 had the greatest average number of boats per watch at 25.4 and the smallest percentage of bottlenose dolphin sightings per watch at 47%. The greatest percentage of sightings by watch time (75%) occurred in the mornings between 0700 – 0900 hours when the boat traffic was quietest with an average boat count per watch of 7.2.



Figure 2-3: Boat counts per watch time and dolphin occupancy per watch time 2016

The 2017 report also confirmed these findings; again, the watch between the hours of 1300 – 1500 had the greatest average number of boats per watch at 25.4 and the smallest percentage of bottlenose dolphin sightings per watch at 65%.

The greatest percentage of sightings occurred in the mornings up to 1100 hours and also in the late afternoon and early evening after 1700 hours, both periods when the boat traffic was quietest.



Figure 2-4: Boat counts per watch time and dolphin occupancy per watch time 2017

Again, the 2018 report demonstrates that the watch between the hours of 1300 – 1500 had the greatest average number of boats recorded per watch at 25.2 and the smallest percentage of bottlenose dolphin sightings per watch at 59%.

The greatest percentage of bottlenose dolphin sightings occurred again in the mornings up to 1100 when the boat traffic was quietest; the average number of boats per watch between 0700 - 0900 was 6.3, with a bottlenose dolphin sightings rate of 78%.



Figure 2-5: Boat counts per watch time and dolphin occupancy per watch time 2018

The graphs below show the number of boats by watch for the three most frequent types of water craft recorded from the New Quay Harbour monitoring site (Heath and Vaughan 2018). N.B. The data covers the period from March 1<sup>st</sup> to October 31<sup>st</sup>, and the below graphs display the average number over this whole period; if the peak season months of May – August, were analysed separately, the figures would be significantly higher.



Figure 2-6: Average number of Wildlife Trip Boats recorded per watch at New Quay Harbour 2018



Figure 2-7: Average number of Canoes / Kayaks / SUPs per watch at New Quay Harbour 2018



Figure 2-8: Average number of Motor Boats recorded per watch at New Quay Harbour 2018

Short-term effects of disturbance can include longer and deeper dives, changes in direction, changes in behaviour, a group may split, or form a tighter group, begin tail slapping or leaping. A bottlenose dolphin leaping or tail slapping is definitely awe-inspiring to watch, but these behaviours do not necessarily mean that the dolphin is happy, or that vessel activity is not causing behaviour change. Research from around the world has demonstrated that exposure to constant vessel traffic leads to changes in both respiration and behaviour. The effects are typically stronger the closer a vessel gets to the animal/s and the more vessels that are present. The impact of constant low-level disturbance can result in disruption to biologically important behaviours like feeding or resting. Even short-term behavioural changes can have long-term consequences for both individual animals and for the entire population. Senigaglia et al (2016) compared cetacean responses to disturbance and found disruptions of activity budget and of path directionality are the most consistent responses towards wildlife watching vessels across a range of cetacean species. In a similar manner across species, animals were more likely to travel and less likely to rest and forage in the presence of vessels. Longterm study of bottlenose dolphins in New Zealand has demonstrated that repeated exposure to wildlife watching traffic correlates with significant population decline and disruption to residency patterns (Constantine, 2002). Therefore, the health of animals repeatedly exposed to constant lowlevel disturbance from wildlife watching traffic and other water users can have a significant impact on the population as a whole.

Along with a significant increase in disturbance from recreational water users, concerns raised last season put forward that wildlife trip boats were eroding the Marine Code, particularly by varying their routes to meet animals and following animals that were moving along their passage down the coast and around the bay. This situation was exacerbated by the majority of trip boats running one hour trips, focused around the New Quay, Carreg Ina, and Bird's Rock area. The nature of commercial trips has changed. There is greater perceived pressure to get close to wildlife because of marketing and social media. The chances of a sighting or encounter with marine mammals in New Quay bay and along the Ceredigion coast are very high, and it is not necessary for trip boats to pursue animals to give their passengers a dolphin watching experience. Constant low-level disturbance can be as equally, if not more, harmful to a population as more infrequent, isolated, high impact disturbance incidents. Commercial wildlife trip boats visit wildlife sensitive areas on multiple occasions each day, every day during the season (which is being extended year on year) and have different motivations for being on the water than recreational water users; the pressure to satisfy paying passengers. The highlighting of dolphins in the trip boats' publicity is also of concern, with skippers feeling under pressure to provide encounters specifically with dolphins, and seem to believe that tourists require an 'up close and personal encounter' to be satisfied. Research suggests this is not the case however, and that tourists will sacrifice personal experience to minimise potential harm, as investigated by Sitar et

#### al (2017).

The perspective that having the opportunity to view marine mammals provides an educational value and greater understanding is contentious. Research has shown that participation in a wildlife watching experience and seeing cetaceans does not leave a lasting impact, and that the enthusiasm for the animals experienced by those participating in a wildlife watching activity does not result in greater understanding or behaviour change. Jacobs and Harms (2014) and also Zeppel and Mulloin (2013).

A further issue raised during the 2021 season was that both recreational water users and wildlife trip boats were repeatedly getting too close to the seabird colonies, resting seabirds, and seals and seal pups resting on rocks and beaches; failing to comply with the original Marine Code requirements regarding distances to minimise disturbance. Seals flushed into the sea will use up vital energy and have raised stress levels. They lose important resting time making them more vulnerable to illness and disease. Even seals that appear undisturbed by remaining hauled on rocks during the presence of humans are affected. Research shows that increased vigilance results in raised heart rates and adrenalin and cortisol releases, Bellman, K.et al (2019). Seals that are regularly disturbed at a haul out may stop using that site, reducing the areas available to rest and breed.

Seals stampeding to the sea may also injure themselves on sharp rocks. Most adult females are heavily pregnant in their final trimester during the summer months leading up to their pupping season, making them even more vulnerable to disturbance and injury from returning to the water due to disturbance. Rest (and efficient digestion) is critical during pregnancy. During the summer months of June, July and August many of the adults observed in the Bird's Rock haul out area are females, so this is a critical and sensitive site. Underweight mums lead to underweight pups that may die. During the August – November pupping season, mothers disturbed when feeding their pups may escape to the water and delay returning to feed. Each missed feed represents 1% of nourishment lost and under nourished pups are not likely to survive their first winter. If repeatedly disturbed, a mother may be forced to abandon her pup altogether.

The Operation Seabird Framework states:

Noise disturbance: Excess noise can disturb wildlife causing detectable changes in behaviour. It can also interfere with an animal's ability to communicate, navigate, avoid danger and find food, ultimately impacting the health and survival of many marine species. For marine mammals sound is their primary means of communication and noise from motorised vessels has the potential to disrupt their normal behaviours and negatively impact their health and wellbeing.

Seabirds nesting on cliffs are often startled by noise causing changes in behaviour such as fleeing their nests and leaving chicks and eggs vulnerable to predation and adverse conditions. This is especially problematic for auk species (guillemots and razorbills) as they do not build nests and lay their eggs directly onto ledges along the cliff; if an auk is startled, there is a significant risk of their egg falling from the cliff. Equally, a significant disturbance event can cause juvenile birds to leave the nest before they are ready to fledge, significantly reducing their chances of survival. Noise disturbance is most common in motorised watercraft based activities however it can be caused by any loud noise in close proximity to marine wildlife.

Visual disturbance: There is evidence that marine animals negatively change their behaviour in the presence of human activity. Any activity has the potential to cause visual disturbance and can cause distress, reduced resting time and avoidance or aggression behaviours in wildlife. The effects of visual disturbance on seabirds can be similar to that of noise disturbance; unfamiliar sights can cause nesting

seabirds to be startled, forcing them to leave their nests leaving chicks and eggs vulnerable to predation and adverse conditions.

Visual disturbance can also cause problems for animals who venture onto land. Seals 'haul-out' onto land between foraging trips to rest and nurse their young. Recreational activity close to a group of seals on land can startle them, causing them to return to the water. Disturbing seals that are 'hauled out' risks interrupting nursing and mating as well as risking separating young from their mothers. Visual disturbance has the potential to be caused by any activity taking place around marine wildlife, even those activities that are not usually thought of as causing disturbance such as paddle boarding and kayaking. (page 4)

### Section 6: Conclusion and Recommendations

The operation Seabird framework states that:

'Wildlife disturbance has long been monitored in many regions by coastal partnerships and on a sitespecific basis. Consistent monitoring in this way helps to determine the scale and impacts of recreational activities on sensitive sites, whilst also providing a mechanism for developing and implementing new management measures. Operation Seabird aims to build on this work and enable enforcement agencies to proactively and effectively respond to disturbance issues. Bringing together the knowledge and expertise of various organisations and enforcement bodies promotes partnership working and a collaborative approach to tackling disturbance and antisocial behaviour on the coast.' (page 3)

In the Cardigan Bay SAC, monitoring takes place through the Dolphin and Porpoise Watch project, this data is instrumental in guiding the management of the SAC, providing robust data on watercraft numbers, interactions with animals, the types of water users having the greatest number of encounters, and the behaviour changes exhibited by animals when an encounter takes place.

Over the winter of 2021/2022, modelled on the Operation Seabird framework, a collaborative approach to promotion, monitoring and enforcement of the Marine Code has been developed by the MPA Officer, involving a partnership of the Cardigan Bay SAC, Ceredigion County Council, the marine branch of the south and west Wales Wildlife Trust and Dyfed Powys police. Joining forces with the police and other organisations provides opportunities for greater resourcing to monitor and manage recreational and commercial disturbance. It is important to note that the police are not the only organisation with enforcement powers. This approach is also being implemented in Gwynedd. Launch sites run by local authorities or launch authorities can prohibit individuals from launching their watercraft, if they have been identified as causing disturbance to marine wildlife.

The Cardigan Bay MPA Officer liaised closely with Dr Sarah Perry, the Living Seas Manager for the marine branch of the South and West Wales Wildlife Trust during the Marine Code review process. Operation Seabird and the UK MPA Officer's network were also consulted.

The headlands at Mwnt, Aberporth, Ynys Lochtyn and New Quay are identified as key feeding sites with consistently high levels of activity. These very important areas, along with the seabird colonies, and seal haul outs, need to be treated differently from the rest of the SAC; specifically with regard to the commercial Marine Code for wildlife trip boat operators. Due to the number and frequency of trips, animals in these sensitive areas are subject to constant low-level disturbance from trip boats. Furthermore, stopping in these areas can cause bunching. Seven boats operate out of New Quay harbour, the majority of them running one hour trips; with an average of one boat travelling down the coast at least every ten minutes, and a ten minute stopping time with animals encountered; therefore two or three trip boats can frequently be seen in any given area. Commercial trip boat

operators need to abide by the same general rules, but because of their frequent use of the same areas, wildlife trip boats are the users putting the most pressure on the wildlife therefore some extra restrictions regarding routes to follow, bunching and distances are necessary.

Therefore, levels of zoning are applicable to the reviewed Marine Code:

• Very sensitive areas with additional speed restrictions specifying travel at 'no wake speed' and no greater than 5 knots, and where wildlife trip boats are subject to greater restrictions than the recreational Marine Code, specifying a 200 metre stopping distance from animals in these areas.

• Everywhere else - the Marine Code stipulates the same behaviour from both commercial operators and recreational users

Both the Recreational and Commercial Marine Codes have been revised and updated (Appendix B and C) with a clear distance for all animals and birds encountered; this is a simple message requiring a set distance of 100 metres. This is consistent with UK best practice. The Marine Code has also been revised in Gwynedd, Conwy and Anglesey, to ensure a collaborative approach throughout North and West Wales.

#### The Operation Seabird framework states-

'To reduce disturbance to sensitive wildlife whilst on the water, we advise the following:

• *Keep your distance: Keep a safe distance (at least 100m) from the cliffs, rafting seabirds and marine mammals, allowing space for animals to move away from you.* 

• No-wake speed: Motorised vessels and personal watercraft should travel at a no-wake speed within 300m of the cliffs or shore.

• Avoid enclosed spaces: All motorised and non-motorised vessels should avoid entering caves and travelling through archways where breeding seabirds or resting seals are present.

• Be aware: If an animal's behaviour changes in response to your presence, move away quickly and quietly.' (page 6)

#### 'the level of disturbance caused by an activity is often linked to the proximity of that activity.' (page 4)

A Disturbance reporting page is now in place on the Cardigan Bay SAC website to encourage the public to record and report wildlife disturbance. A QR code to quickly take the user directly to the disturbance reporting page will be promoted on interpretation panels and promotional material such as community notice boards; to ensure maximum exposure and that it is both accessible and visible along the Ceredigion coast.

**Licensing/Registration:** Gwynedd Council has demonstrated the income raising ability of its registration scheme, enabling them to put in place the necessary infrastructure to manage the area's power boat and Personal Watercraft activity. Careful consideration should be given as to how a scheme could be introduced in Ceredigion.

Ceredigion County Council Harbour Policy currently follows a programme of discouraging the use of Personal Water Craft along the entire Ceredigion coastline. Several respondents to the Marine Code questionnaires in Ceredigion, Gwynedd, Anglesey and Conwy raised the issue of management measures for jet ski launching. In practice, this can only be achieved at launch sites that are controlled and staffed by the Council. From a nature conservation view point no differentiation can be made between PWC's and other fast, high-powered craft if used appropriately. Issues arising from PWC use include the impact on bather safety and noise disturbance to other inshore recreational users.

#### Further Recommendations are:

- Improve promotion of guidance to water users improve information at launch sites.
- Develop a licensing and accreditation scheme for wildlife trip boat operators with revocable licenses. Evidence from other MPA's worldwide demonstrates that voluntary codes have limited value without appropriate enforcement and licensing.
- Develop a registration scheme for power boat and personal water craft users
- Implement a policy of withdrawing mooring/launching facilities from skippers / that habitually fail to comply with the Code
- Historically, 8 knot speed limit buoys were put out during the season to highlight the voluntary speed restriction and to encourage water users to keep on the seaward side of the buoys in sensitive areas containing sea bird colonies and seal haul-out sites. These need to be re-instated, with consideration given to marking out buoyed no-go areas, such as the sea bird colonies and seal haul outs.
- Sensitive sites identified as requiring extra management measures for wildlife trip boats need to be monitored for consideration of whether greater restrictions in these areas also need to apply to recreational water users through the implementation of "no go" or "no stopping" rules to minimise disturbance for all water users.
- The Marine Code needs to be reviewed annually, combined with a precautionary approach to the management of water users.
- Reliance on short term external grant aid to fund agreed management does not allow for adequate staffing and management to take place. Currently the SAC officer post is funded solely by Ceredigion County Council, with no funding support from NRW or Welsh Government despite the MPA being a national designation.
- In the Cardigan Bay SAC both the seasonal Water Ranger and MPA Visitor's Centre Assistant need to be re-instated and adequately funded to ensure staff time is back up to historical levels of ten days a week during the season, to ensure that effective promotion and management of the Marine Code can take place. Investigate rolling this out across the MPA network where marine mammals and birds are a feature.

In 2021 the Cardigan Bay MPA Officer was on long term sick leave for several months during the season, no council presence was in New Quay or along the Ceredigion coast during this period to promote and ensure compliance with the Marine Code due to lack of staffing.

Dr Sarah Perry, Living Seas Manager for the marine branch of the Wildlife Trust of south and West Wales, raised the issue of the erosion of the Marine Code by water users and trip boat operators during this period, stating that the level of disturbance "could only be described as appalling and disappointing". Dr Perry continued, stating that "Anyone with any knowledge on the impacts of disturbance on wildlife that has watched the activity along the Ceredigion coastline this year would have been shocked by what they observed and that the council have seemingly allowed to take place. It would appear from the outside that protecting the marine environment and the marine wildlife within which is arguably one of Wales' main attractions and what is used to promote tourism in the Wales, has not been made a priority for Ceredigion County Council. I do hope that the Council will take steps to ensure adequate measures are put in place in the future so that the situation that we have experienced this year is not repeated and that protection of the marine wildlife and the marine environment as a whole is considered a priority for the Council. It could be construed that without your (the MPA Officer) presence on the ground this year; and thus the lack of resources within the council, this may have led to the exacerbation of the disturbance of marine life; including dolphins, seals and seabirds. Once again I would encourage the council to ensure that steps are taken to ensure this doesn't happen again."

# Section 7: Appendices

#### Appendix A: Key legislation

#### Wildlife and Countryside Act 1981:

The Wildlife and Countryside Act 1981 is the primary piece of legislation that protects animals, plants and habitats in the UK. Under section 9 of the Wildlife and Countryside Act, in reference to all species of dolphin, porpoise, whales and basking sharks, it is an offence to:

- Intentionally kill, injure or take any wild animal.
- intentionally or recklessly disturb any wild animal.
- Sell, be in possession of, or transport for selling animals.

Wild birds, their nests and eggs are protected under section 1 of the Wildlife and Countryside Act 1981. Under this section it is an offence to:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of a wild bird.
- Take, damage or destroy the nest of any wild bird while that nest is in use or being built.
- Take or destroy an egg of any wild bird.

#### Conservation of Habitats and Species Regulations 2017

Under the Conservation of Habitats and Species Regulations 2017 it is offence under this act to:

- Deliberately capture, injure or kill any wild animal of a European protected species.
- Deliberately disturb wild animals of any such species.
- Deliberately take or destroy eggs of such an animal.
- Damage or destroy a breeding site or resting place of such an animal.

#### Animal Welfare Act 2006

Under the Animal Welfare Act 2006, any vertebrate other than man is offered protection. Under this act, a person commits an offence if:

• An act of his, or a failure of his to act, causes an animal to suffer.

• They knew, or ought reasonably to have known, that the act, or failure to act, would have that effect or be likely to do so.

- The animal is a protected animal.
- The suffering is unnecessary.

#### Appendix B- North and West Wales Marine Code: Cardigan Bay, Gwynedd, Conwy and Anglesey



Dyfed Powys police on 101 or please visit: cardiganbaysac.org.uk/disturbance



If you stop to watch, enjoy their company for a maximum of 10 minutes.

The Marine Code applies to all water users. 100 metres is approx the length of a football pitch.

seals or seabirds are present.



#### Appendix C: Ceredigion Commercial Code for wildlife trip boat operators



#### Ceredigion Marine Code for Commercial Passenger Boats in the Cardigan Bay SAC 2022





The Cardigan Bay Special Area of Conservation (SAC) the West Wales Marine SAC and the Ceredigion Marine Heritage Coast are internationally important areas for bottlenose dolphins, harbour porpoise and grey seals; the coastline is a nationally important area for nesting seabirds.

Produced using current UK best practice and evidence form the CCC monitoring programme; compliance with the Marine Code not only helps to ensure the future of Cardigan Bay as a prime wildlife watching destination, but also models best practice to other water users.

All commercial wildlife trips operating out of New Quay to follow set routes as used historically (incl. good/bad weather).

Minor deviation from routes to avoid approaching animals directly is actively encouraged.

Please note the Ceredigion Coast and Harbour bylaws stipulate 5 knots within the harbour limits (extends to Carreg Ina and to the fish factory) and 8 knots along the coast.

#### Marine mammals

- Keep at least 100 metres away from all marine mammals, including seals / seal pups resting on the rocks or on the shore.
- Remain stationary or cruise by at 100m from any individual or group if there is another vessel 100m away, keep all boats on the same side of the animal.
- If you stop to watch, enjoy their company for a maximum time of 10 minutes.
- Proceed at 'no wake' speed, no more than 5 knots, and minimise manoeuvring when within 300m.
- Never approach directly, and do not deviate from agreed routes to see animals.
- If more than one boat is travelling in the same direction, go in single file rather than abreast.
- Do not stop with the same animal/group of animals more than once on the same trip.
- Do not enter the sea caves, these areas are a valuable seal haul out and pupping site.
- The headlands at Mwnt, Aberporth and Ynys Lochtyn; Craig yr Adar, Carreg Ina, Trwyn Crou and the caves just north towards New Quay are all sensitive areas; proceed at 'no wake' speed and at no more than 5 knots at all times in these areas, stopping distances in these sensitive areas are 200 metres from any animals encountered.
- The area off New Quay harbour wall is a 'no stopping' area for viewing wildlife.

#### Birds

- Keep at least 100m from the base of the cliffs when passing the seabird colonies.
- Travel at 'no wake' speed and at no more than 5 knots at all times when passing within 300m of the seabird colonies.
- Pass seabird colonies quietly (no tannoy commentary please).
- No stopping within 200 metres of the base of the cliffs. Keep stopping times to a minimum (no more than 10 minutes) and at least 200m from the cliffs by the seabird colonies during the breeding season (1<sup>st</sup> April – 31st August).
- Keep clear of groups of birds resting or feeding on rocks or the sea (at least 100 metres away) slow down and go around them.

Operator & Skipper Signature:

Vessel and Company:

For more information contact the SAC Officer: melanie.heath2@ceredigion.gov.uk

To report disturbance, ring Dyfed Powys police on 101 or report on the Disturbance page on the CBSAC website; link and QR code: https://cardiganbaysac.org.uk/disturbance





### Section 8: References

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