

Orcas: Far more Interactions. Some more evidence what may be successful to keep Orcas away from rudders. An Update from Paul Lingard, CRUISING ASSOCIATION.

Paul Lingard is a member of the Orca Project Team at the Cruising Association, based in London.

Thomas Kaesbohrer is author of the THE RIDDLE OF THE ORCAS. In this interview Paul gives Thomas an update on latest orca moves, interactions and success of countermeasures based on latest orca interaction reports.



The dangerous moment: A killer whale photographed on his careful final approach towards a yacht rudder. It can be seen clearly how the Orca turns aside below two stern ball fenders to get grip of the free hanging spade rudder. The book *THE RIDDLE OF THE ORCAS* explains details and motivations of Orca attacks on rudders and shows successful strategies.

Thomas Kaesbohrer: Hi Paul. I am happy to be in contact with you. Did you observe any significant changes in orca interactions and behaviour in these last months?

Paul Lingard: It seems that activity has increased significantly in 2023 compared to previous years, based on reviewing the GRUPO TRABAJO ORCA ATLANTICA (GTOA) monthly interaction maps. GTOA captures the great majority of interactions from reports received directly, by following social media sources and through reports from maritime and official authorities. However they cannot guarantee to capture every single interaction.

tk: In comparison between spring 2021 and spring 2023 there seems to be a major increase in violent interactions. In my book *THE RIDDLE OF THE ORCAS I* assumed this increase for 2023. Do you have comparative figures for this assumption?

Paul Lingard: As far as available data show in GTOA and our CA sources we have interactions in 2023 as follows:

Orca Spring-Interactions with Yacht Rudders in Comparison 2021-2023						
	2021		2022		2023	
Jan	1	SW of Casablanca	0		4	3 Barbate; 1 Sagres/P
Feb	3	Galicia, Algarve/P, Gib	1	near Gibraltar	6	3 near Gibraltar; 3 Setubal/P
Mar	1	Gibraltar	1	near Lagos/P	6	3 Gib; 3 Portugal
Apr	7	Spanish approaches to Gibraltar	8	Spanish approaches to Gibraltar	14	1 Peniche, 1 towards Canaries 12 near Gib
			6	after 24th April		
	12		10		30	

Paul Lingard's statistics show a significant increase in Orca interactions with rudders between January and May 2023. And May data is not yet included completely...

Between January and April 2023 to date 30 interactions - So we have two and a half or three times as many confirmed interactions as in previous years.

The April interactions in previous years took place towards the Spanish side of the approaches to Gibraltar, whereas this year there seems to have been a concentration near to Cap Spartel (W of Tangier) in the early part of April, moving to the Spanish side in the later part. Again, however, note that the shallow route off the coast of

Spain has been free of interactions. This sits mostly in water of 20 metres depth except the need to go outside tuna nets. At Barbate there is a route inshore of the nets with care.

tk: Do you see an increase also in violent Orca interactions with rudders?

Paul Lingard: I can't say whether the interactions have been more or less violent as so far this spring as only 17 of 30 interactions have been reported to the CRUISING ASSOCIATION. We need more skippers to report if we are to be successful.

tk: Concerning recommended reactions on orca interventions what do you actually recommend for sailors in this area?

Paul Lingard: Talking about the different strategies sailors have adopted:

Reversing. Successful or not?

From CA reports it would appear that reversing – i.e. going astern in case of an interaction – has been successful more times than not, but we cannot see whether reversing in a straight line or circle, fast or slow has been more or less effective, even after follow up emails to obtain greater detail. We are updating the CA report form very shortly to include specific questions around reversing.

Sand. And its Acoustic Mirror Effect.

You may have seen me post on Facebook and in the WhatsApp group, that Alfredo López from GTOA explained the sand effect to me. Some people ask if the idea is to throw it at the blowhole, but I understand that the idea is to scatter sand around the stern which, according to Alfredo changes the density of the water and will create an acoustic mirror effect which disrupts the echolocation sense.

Renaud De Stephanis from CIRCE showed footage where orcas following his motor boat were not clicking but were making calls and whistles, so they were using eyes not echolocation to position themselves. The water was exceptionally clear.

I responded to him and suggested using a mix of sand and fluorescein (this is a specific material) tracing dye so that both echolocation and eyesight senses would be affected. He has put it in his list of measures that he intends to test.

GTOA sought approval from Spanish authorities to test measures including sand but permission was refused. So I don't know whether Renaud will need specific permission to carry out each of the tests that he proposes, but if so, then I hope he is more successful in his application than GTOA.

tk: When does throwing sand prove to be more effective: On running or yachts lying still?

Paul Lingard: Sand and dye will obviously be most effective when playing dead. If one runs as Renaud suggests, then it will be very rapidly dispersed. One skipper

reported on social media around a week ago that as soon as sand was thrown in the water the orca moved away.

Running Away from Orcas as fast as possible?

Renaud de Stephanis also advises that in an interaction you should put the engine on at full power and leave the area. His rationale for that is, that it is mainly juveniles that undertake the attacks and they will not leave the adults behind. However, many reports tell us that both adults and juveniles are present in many interactions. Many adults watch but some do physically interact. We are therefore changing the CA report form to ask how many adults and how many juveniles are present if known (it can be hard to identify adult or juvenile unless both are present). There will be a field for numbers of orcas where age is “uncertain”.

We will present a link to the GTOA website (orcaiberica.org) and they have kindly updated their page about orcas to aid differentiation between adults and juveniles. It will be interesting if reports from yachts that are motoring away when both adults and juveniles are present give a different result in terms of activity and damage from the reports where only juveniles or only “uncertain” numbers are given. Renaud advises to run irrespective of adults being present.

However, Renaud’s numerous tests on motoring away have been conducted using a motor boat. This will not have the large rudder that a yacht presents. Orcas are likely to be motivated by the action of the rudder. They know that it makes the yacht jump around when bumped and they probably understand that breaking it can disable the yacht (as they understand how to disable prey by biting the tail). They do not have this motivation with a motor boat. While we hope that Renaud’s theory proves correct, we cannot recommend it given the data from GTOA (that not following the protocol leads to marginally higher rates of serious damage). We will be watching the CA interaction reports very closely to see what happens to those who follow Renaud’s advice.

tk: Is there any new recommendation for yachts gathering in groups and running in shallow waters?

Paul Lingard: The many interactions that have occurred in April have occurred in deeper water, however we know from reports on social media that many passages have taken place in shallow water (mostly around 20 metres) off the Spanish coast, and no interactions have been reported in this area. Some people have suggested running along the side of the shipping lanes so that the noise of yachts is masked, but I have seen reports of interactions in this area in previous years. So the shallow water route is the safest as far as orca interactions is concerned. However, I would not take that route with an onshore wind (in case of being disabled) and care needs to be taken with tuna nets, strong currents and isolated shallow areas.

I cannot advise on sailing in a flotilla as we have no data. Certainly it would be good to have others on hand in case of problems, however could the noise of several engines draw curious orcas into the shallows? The reason for the lack of interactions in the shallows is not because orcas don’t like shallow water, it is because their hunting ground is in deeper water. But might orcas with full bellies go and investigate a flotilla?

And just to add to the Renaud De Stephanis theory of motoring away as fast as possible – GTOA have published detail on their site or their statistics which shows that not following the protocol does lead to a marginally higher risk of suffering serious damage. In our updated web page we will be explaining why, when following the protocol, it is important to follow the advice to “keep a low profile” because we see from videos that not everyone does this.

tk: What do you mean by low profile?

Paul Lingard: It seems that GTOA spoke to scientists studying orca behaviour at Sea World and they say that orcas there enjoy eliciting a response from the keepers by hding and then splashing them when they peer over an overhang. Similarly, GTOA think that running around on deck will keep the orcas interested in continuing the interaction even when a boat is stopped. And we have all seen videos where the yachts were stopped in the water but the crew were not keeping a low profile.

I’m currently reading your book and see that you picked up on this.

So we have conflicting theories and advice from different scientists. Run or stop? We hope to be able to establish which is more effective if we get enough reports.

tk: What is necessary to improve your research?

There is clearly the need of more Skippers to report

Paul Lingard: There is clearly the need of more Skippers to report. We need more people to report and complete a CA form if we are to succeed. It is possibly easier to report on Facebook or WhatsApp (and the reporter may be interested in engaging in a discussion), but such reports are unstructured and not collated in a way that helps us to look for patterns. Both have their place and in the CA web page update (to be published shortly) we encourage people to discuss the problem on social media, but hopefully the benefits of the CA and GTOA projects are clear!

We collate and display the reports for use by anyone, sailors and scientists alike, so whilst the Facebook and WhatsApp groups are important, they do not gather information on a structured way and the anecdotal stories and discussions disappear beyond reasonable searching time.

So any words you can use to encourage reporting would be appreciated.

I’m hoping that our CA web update should be completed by beginning of May and you will see that we have updated our advice in there.

tk: Thank you, Paul for your update!