Killer Whales of the Northern Indian Ocean:
A Catalogue of Photo-Identified Individuals

With Contributions from members of the
Northern Indian Ocean Killer Whale Alliance

August 2018
The Northern Indian Ocean Killer Whale ID Catalogue
August 2018

The Northern Indian Ocean Killer Whale ID Catalogue and sightings repository are the result of an extensive collaborative effort by the individuals and organizations that make up the Northern Indian Ocean Killer Whale Alliance (NIOKWA).

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For the most current (and up to date) version of this catalogue, please visit the Live On Screen Version hosted on the NIOKWA website.

Cover Photo: NIO034 by Raja and the Whales Crew
About the NIO Killer Whale Alliance

Very little is known about the killer whales that inhabit the tropical waters of the Northern Indian Ocean.

Due to their typically offshore nature and infrequent sightings, very little is known about their ecology, movements, population structure and more...this makes them some of the most mysterious cetaceans in the world.

The Northern Indian Ocean Killer Whale Alliance was founded as part of a collaborative project between Orca Project Sri Lanka, a Citizen Science study of killer whales seen off Sri Lanka, and Wildlife Conservation Society biologist Tim Collins, with the hopes of shedding some light on the lives of these mysterious whales. In addition to coordinating a Photo ID catalogue for the region and developing a general repository of sighting records, the alliance was set up with the objective of increasing the number of “eyes and ears” available in the area for killer whale sightings. Membership includes individuals and organizations from a wide range of backgrounds including marine research, tourism and recreation.

Together we learn more

Although sightings are sparse they can be far more informative when they are shared and compared. In addition to this PDF, a live online version the catalogue can also be found on the NIOKWA website under the 'ID Catalogue' tab. All images contributed are fully credited to their photographer(s), observers and/or study.

While only in the early stages, this ocean-wide collaborative effort bears the support of over 30 individuals and 19 organizations. We predict that in time this project may reveal some of the secrets of the whales in this region, including insights into their site fidelity, diet, movements between countries, population sizes and maybe even ecotypes.
Individual Members of the Northern Indian Ocean Killer Whale Alliance

Founders and Administrators
Georgina Gemmell (Orca Project Sri Lanka)
Tim Collins (Wildlife Conservation Society)

Gehan de Silva Wijeyeratne (Orca Project Sri Lanka)
Robert Pitman (NOAA/ Technical Advisor to Orca Project Sri Lanka)
Louisa Ponnampalam (MareCet Research Organisation)
Chris Johnson (WWF Australia)
Heike Vester (Ocean Sounds)
Akshay Malavi (Gamefishing Asia)
Andy Willson (Five Oceans Environmental Services)
Robert Baldwin (Five Oceans Environmental Services)
Rob Lott (WDC Whale and Dolphin Conservation)
Vanessa Williams-Grey (WDC Whale and Dolphin Conservation)
Dieter Dongphrajan (Sailing Phuket/ S.Y Nakamal)
Charles Anderson (Marine Biologist in the Maldives)
Asanga Cooray (Mirissa Water Sports)
Ada Natoli (UAE Dolphin Project)
Pete Garbett (Cetal Fauna)
Michael Gilbert (Watamu Marine Association/ Kenya Marine Mammal Network)
Gill Braulik (WCS Wildlife Conservation Society)
Chammika Kumara

John Totterdell (MIRG - WA Orca Research)
Salvatore Cerchio (New England Aquarium)
Bernard Coetzee (SCAR Antarctic Conservation Strategy/ Seychelles Island Foundation)
Jane Spilsbury (Watamu Marine Association/Kenya Marine Mammal Network)
Muhammad Lazuardi (Coral Triangle Center/Conservation International)
Nazanin Mohsenian (Plan for the Land Society)
Hamed Moshiri (Plan for the Land Society)
Rebecca Soctt (Seychelles Island Foundation)
Franco Banfi
Martin Solli
Anouk Ilлагakoон
Joshua Barton
Darryl MacDonald (Clear Blue Photo)
Curtis Lowe (Project Clean Uluwatu)
Steve Trott (Watamu Marine Association/ Kenya Marine Mammal Network)
Abhisheк Jamalabad (WWF India)
Josh Mcllnnes (Transient Killer Whale Research Project)
Amy Kennedy (NOAA)
Jodie Thomas
Rob Coverdale
Member Organizations

Orca Project Sri Lanka (OPSL)
Environment Society of Oman - www.eso.org.om
Ocean Sounds (Raja Ampat Cetacean Study) – www.ocean-sounds.org
Wild Blue
Marine Information & Research Group Australia www.mirg.org.au
Raja and the Whales www.rajaandthewhales.com
Mirissa Water Sports Ltd www.mirissawatersports.com
Whale Watching with Geeth www.whale-watching-mirissa.com
Gamefishing Asia www.gamefishingasia.com
Five Oceans Environmental Services www.5oes.com
WDC Whale and Dolphin Conservation uk.Whales.org
UAE Dolphin Project www.uaedolphinproject.org
Cetacean Sirenian Indonesia www.cetasindonesia.org
Thailand Divers Ltd www.thailand-divers.com
Dive Alor Dive www.divealor.com
Big Blue Diving Khao Lak www.bigbluedivingkhaolak.com
Watamu Marine Association www.watamu.biz
Cetal Fauna www.facebook.com/groups/CetalFauna
Kenya Marine Mammal Network - kenyammnetwork.wix.com/kmmnetwork
Plan for the Land Society – www.plan4land.org
<table>
<thead>
<tr>
<th>Pod or Individual ID</th>
<th>Date</th>
<th>Location</th>
<th>Observer and Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pod 1.</td>
<td>2004/05/06</td>
<td>Eritrea, Red Sea</td>
<td>Chris Johnson/WWF</td>
</tr>
<tr>
<td>Pod 2.</td>
<td>2008/11/29</td>
<td>Seychelles, Passe du Bois</td>
<td>Bernard Coetzee/Seychelles Island Foundation</td>
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<td>Pod 3.</td>
<td>2008/01/02</td>
<td>India, Kochi</td>
<td>Martin Solli</td>
</tr>
<tr>
<td>Pod 4.</td>
<td>2008/03/01</td>
<td>Oman</td>
<td>Louisa Ponnampalam/ESO</td>
</tr>
<tr>
<td>Pod 5.</td>
<td>2005/02/22</td>
<td>Muscat, Oman</td>
<td>Louisa Ponnampalam/ESO</td>
</tr>
<tr>
<td>Pod 6.</td>
<td>2013/04/18</td>
<td>Mirissa, Sri Lanka</td>
<td>Shawn Heinrichs/Blue Sphere Media</td>
</tr>
<tr>
<td>Pod 7.</td>
<td>2012/03/31</td>
<td>Mirissa, Sri Lanka</td>
<td>Rob Hampson</td>
</tr>
<tr>
<td>Pod 8.</td>
<td>2012/06/22</td>
<td>Mirissa, Sri Lanka</td>
<td>Raja and the Whales Crew</td>
</tr>
<tr>
<td>Pod 9.</td>
<td>2015/01/28</td>
<td>Mirissa, Sri Lanka</td>
<td>Raja and the Whales Crew</td>
</tr>
<tr>
<td>Pod 10.</td>
<td>2014/04/25</td>
<td>Mirissa, Sri Lanka</td>
<td>Mike Greenfelder</td>
</tr>
<tr>
<td>Pod 11.</td>
<td>2015/05/10</td>
<td>E coast offshore, Sri Lanka</td>
<td>See Orca Project Sri Lanka’s Sighting Log</td>
</tr>
<tr>
<td>Pod 12.</td>
<td>2008/12/29</td>
<td>Mirissa, Sri Lanka</td>
<td>See Orca Project Sri Lanka’s Sighting Log</td>
</tr>
<tr>
<td>Pod 12.</td>
<td>2008 June</td>
<td>Abu Dhabi, United Arab Emirates</td>
<td>See Orca Project Sri Lanka’s Sighting Log</td>
</tr>
<tr>
<td>Pod 12.</td>
<td>2015/08/31</td>
<td>Mirissa, Sri Lanka</td>
<td>See Orca Project Sri Lanka’s Sighting Log</td>
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<tr>
<td>Pod 12.</td>
<td>2014/12/01</td>
<td>Myanmar</td>
<td>See Orca Project Sri Lanka’s Sighting Log</td>
</tr>
<tr>
<td>Pod 12.</td>
<td>2014/12/01</td>
<td>Koh Tachai, Thailand</td>
<td>See Orca Project Sri Lanka’s Sighting Log</td>
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</table>

Table 1. Sightings records for Identified Killer Whales
<table>
<thead>
<tr>
<th>Pod or Individual ID</th>
<th>Date</th>
<th>Location</th>
<th>Observer and Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pod 13.</td>
<td>2012/02/29</td>
<td>Raja Ampat, Indonesia</td>
<td>Franco Banfi</td>
</tr>
<tr>
<td></td>
<td>2012/03/06</td>
<td>Raja Ampat, Indonesia (with 3 other individual female/subadult males)</td>
<td>Hanz Schulz on Flickr</td>
</tr>
<tr>
<td></td>
<td>2015/02/06</td>
<td>Raja Ampat, Indonesia</td>
<td>Heike Vetser/Ocean Sounds</td>
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<td>Pod 14.</td>
<td>2007/04/08</td>
<td>Raja Ampat, Indonesia</td>
<td>Muhammad Lazuardi/Conservation International Indonesia</td>
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<td>Pod 15.</td>
<td>2004/03/24</td>
<td>Maldives</td>
<td>Robert Pitman/Odyssey Expedition</td>
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<tr>
<td>Pod 16.</td>
<td>2017/03/22</td>
<td>Kalpitiya, Sri Lanka</td>
<td>Andrew Sutton</td>
</tr>
<tr>
<td>Pod 17.</td>
<td>2017/03/28</td>
<td>Oman</td>
<td>Amy Kennedy and Darryl MacDonald</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Environment Society of Oman ESO</td>
</tr>
<tr>
<td>Pod 18.</td>
<td>2011/02/23</td>
<td>Kenya</td>
<td>Rob Coverdale/Watamu Marine Association</td>
</tr>
<tr>
<td>Pod 19.</td>
<td>2018/01/26</td>
<td>Mirissa, Sri Lanka</td>
<td>Chammika Kumara/Raja and the Whales Crew</td>
</tr>
<tr>
<td>Pod 20.</td>
<td>2018/02/17</td>
<td>Kenya</td>
<td>Jodie Thomas/Watamu Marine Association</td>
</tr>
<tr>
<td><strong>Suspected Lone Animals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIO038</td>
<td>2011/12/26</td>
<td>Mirissa, Sri Lanka</td>
<td>Sriyan de Silva Wijeyeratne, Rashmi de Silva</td>
</tr>
<tr>
<td></td>
<td>2012/12/01</td>
<td>Mirissa, Sri Lanka</td>
<td>Wijeyeratne and Rob Janson</td>
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<tr>
<td></td>
<td>2012/12/03</td>
<td>Mirissa, Sri Lanka</td>
<td>Madhawa Rajapakse</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Sean Swalwell</td>
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</tbody>
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*All records from Sri Lanka have been sourced from the sightings log maintained by Orca Project Sri Lanka*
<table>
<thead>
<tr>
<th>ID</th>
<th>Date</th>
<th>Location</th>
<th>Observer/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIO039</td>
<td>2013/04/17</td>
<td>Mirissa, Sri Lanka</td>
<td>Marianne Taylor</td>
</tr>
<tr>
<td>NIO042</td>
<td>2009/04/07, 2014/01/26</td>
<td>Andaman Islands, Andaman Islands</td>
<td>Akshay Malavi/Gamefishing Asia, Akshay Malavi/Gamefishing Asia</td>
</tr>
<tr>
<td>NIO050</td>
<td>2012/01/26</td>
<td>Mirissa, Sri Lanka</td>
<td>Michaela Hanusova/Whale Watching with Geeth</td>
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<tr>
<td>NIO051</td>
<td>2016/01/17, 2016/01/26, 2016/02/10, 2016/02/11</td>
<td>Mirissa, Sri Lanka, Mirissa, Sri Lanka, Mirissa, Sri Lanka, Mirissa, Sri Lanka</td>
<td>Raja and the Whales Crew, Anna Hilbert/OPSL Volunteer, Raja and the Whales Crew, Raja and the Whales Crew</td>
</tr>
</tbody>
</table>

*All records from Sri Lanka have been sourced from the sightings log maintained by Orca Project Sri Lanka*
Identification Methods:
This catalogue uses the tears, nicks and scars found on the dorsal fin as the primary method to identify individuals.

Saddle Patch Pigmentation:
The saddle patch is the grey saddle-shaped area at the base of a killer whale's dorsal fin. It is typically used as a feature for identification in the study of other killer whales, particularly in those from cold and temperate waters. However, killer whales in the tropics tend to have a saddle patch that is too faint to be a reliable feature for ID. Visibility and degree of shading does tend to vary from animal to animal and pod to pod, with some individuals having no visible patch while others are clear enough to see unique contrasting scars. In the cases where an individual’s saddle patch is clear enough to be used in identification, the image has been cropped to include it.

Limitations of opportunistic data:
Many of the encounters with these elusive, pelagic killer whales were opportunistic. Please understand that image quality and availability varies. For this catalogue, we have used just one side of the dorsal fin that best shows the overall silhouette. The killer whales are catalogued into pods, but in some cases not all of the pod was photographed, or photographed with a quality suitable for ID. At the top of each pod listing, an approximate number of animals sighted during that encounter has been given. This is based on either details provided by the observer or the number of distinguishable individuals present in photographs and/or footage.
Pod 1. (6 individuals)

NIO001  NIO002  NIO003  NIO004

Sighting Location(s): Africa East, Eritrea

Other Catalogues: Not at present time.
Pod 2. (approx. 8 individuals)

NIO005
© Bernard Coetzee/ Seychelles Islands Foundation

Sighting Location(s): Africa East, Seychelles

Other Catalogues: Not at present time.
Pod 3. (approx. 8 individuals)

Sighting Location(s): Asia South, India - Kerala

Other Catalogues: Not at present time.
Pod 4. (approx. 8 individuals)

Sighting Location(s): Middle East, Oman

Other Catalogues: Not at present time.
Pod 5. (2 individuals)

Sighting Location(s): Middle East, Oman

Other Catalogues: Not at present time.

All images © Louisa Ponnampalam/ESO
Pod 6. (approx. 6 individuals)

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – Pod 2.
Pod 7. (approx. 5 individuals)

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – Pod 3.

© Raja and the Whales Crew
Pod 8. (approx. 6 individuals)

Sighting Location(s): Asia South, Sri Lanka


© Raja and the Whales Crew
Pod 9. (3 individuals)

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – Pod 5.

All images © Mike Greenfelder
Pod 10. (2 individuals)

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – Pod 1.

All images © Andrew Sutton
Pod 11. (11 individuals)
Pod 11. Continued

NIO037

© Raja and the Whales Crew

Sighting Location(s): Middle East, Abu Dhabi UAE / Asia South, Sri Lanka

Suspected Lone Individual

NIO038
© Madhawa Rajapakse

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – OM002.
Suspected Lone Individual

NIO039
© Marianne Taylor

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – OM003.
Pod 12. (3 individuals)

Sighting Location(s): Asia Southeast, Myanmar
- Asia Southeast, Thailand

Other Catalogues: Not at Present Time.
Suspected Lone Individual

NIO042

All images © Akshay Malavi/ Gamefishing Asia

Sighting Location(s): Asia Southeast, Andaman Is.

Other Catalogues: Not at Present Time
Pod 13. (2 individuals)

Sighting Location(s): Asia Southeast, Indonesia – Raja Ampat.

Other Catalogues: Not at Present Time
Pod 14. (2 individuals)

Sighting Location(s): Asia Southeast, Indonesia – Raja Ampat.

Other Catalogues: Not at Present Time
Pod 15. (6 individuals)

Sighting Location(s): Asia South, Maldives

Other Catalogues: Not at Present Time
Suspected Lone Individual

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – OM009.
Suspected Lone Individual

NIO051
© Raja and the Whales Crew

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – OM025
Pod 16. (20 individuals)

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – Pod 7

All images © Andrew Sutton

Continued →
Pod 16. Continued

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – Pod 7
Pod 17. (6 individuals)

Sighting Location(s): Middle East, Oman

Other Catalogues: Not at present time.

All images © Amy Kennedy and Darryl MacDonald/ESO
Pod 18. (9 individuals)

Sighting Location(s): Africa East, Kenya

Other Catalogues: Not at present time.
Pod 19. (4 individuals)

Sighting Location(s): Asia South, Sri Lanka

Other Catalogues: Orca Project Sri Lanka – Pod 8
Pod 20. (4 individuals)

NIO071

NIO072

All images © Jodie Thomas/ shared by WMA

Sighting Location(s): Africa East, Kenya

Other Catalogues: Not at present time.
We’d love to hear from you

To become an alliance member, share a sighting or request to use data or images in publication please contact us at

georgina.wildoceans@gmail.com

Or alternatively, you can fill out a contact form found on the NIO Killer Whale Alliance website