



BMB TECHNICAL BULLETIN
No. 2020 - 05

**SUBJECT : GUIDELINES ON THE PROTECTION OF MARINE TURTLE
NESTING HABITATS**

Pursuant to Republic Act No. 9147 (Wildlife Resources Conservation and Protection Act of 2001) and in pursuit of the objectives of DAO 2016-12 (Adopting the Philippine Biodiversity Strategy and Action Plan), and DAO 2019-09 (Updated National List of Threatened Species), the following guidelines on the management of nesting habitats of marine turtles is hereby issued for guidance of all concern.

I. Introduction and Rationale

Five of the seven species of marine turtles of the world are found in the Philippines. These are the green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*), olive ridley turtle (*Lepidochelys olivacea*), leatherback turtle (*Dermochelys coriacea*) and loggerhead turtle (*Caretta caretta*). The green turtle, hawksbill turtle, olive ridley turtle and leatherback turtle have nesting grounds throughout the country. The loggerhead turtle on the other hand feeds on the country's rich marine resources. All the five species of marine turtles are threatened with extinction.

Marine turtles are known to have nesting fidelity throughout their reproductive years. Successful reproduction is therefore dependent on the availability of suitable nesting beaches. However, nesting beaches are threatened by incessant developments and increased human activities. This may lead to physical loss of the nesting beach itself or decline in suitability due to introduction of solid waste, noise and light pollution, and other forms of disturbances. Such anthropogenic disturbances can be exacerbated by the effects of climate change such as sea level rise and storm surges leading to coastal beach erosion. Thus, active intervention to maintain the integrity of nesting beaches is crucial to arrest further decline of marine turtle nesting habitats.

II. Objectives

This Technical Bulletin intends to provide the following:

- a) Guidelines on the validation of reported nesting beaches for priority protection;
- b) Modalities in the conservation of marine turtle nesting sites in accordance with existing policies, rule and regulations; and
- c) Recommended basic activities for managed nesting sites, including pointers for managing the risks of common disturbances of marine turtle nesting beaches.

III. Identification and validation of nesting sites for priority management

1. Reported marine turtle nesting sites should be validated by the concerned DENR Field Offices through habitat survey and Key Informant interviews, using the attached Habitat Survey form "**Annex A and A.1**". For this purpose, the initial list of marine turtle nesting sites per region is attached as "**Annex B**" for reference in the conduct of site validation, as necessary;
2. Beaches with documented nesting incidence for at least 3 successive years shall be considered for site management to maximize use of limited resources available for conservation.

IV. Management options for nesting sites

Nesting beaches are generally located within the salvage zone/easement of 20 meters (in agricultural areas) or 40 meters (in forest lands) from the highest tide mark, and those by default are within public domain as stipulated under Republic Act 9275 (Water Code of the Philippines). However, to provide on-site interventions, the following options for management can be implemented:

1. Critical Habitat Establishment

Nesting sites outside Protect Areas under the NIPAS (RA 7586) as amended by Expanded Nipas (RA 11038), may be designated by the DENR Secretary as a Critical Habitat Pursuant to the RA 9147. The Procedure in the designation of a critical habitat is provided under Department Memorandum Circular 2007-02. Critical habitats may be co-managed by the DENR and concerned local government, Peoples Organizations, Civil Society Organizations, IPs and other concerned groups. A Memorandum of Agreement (MOA) shall be executed between the DENR and partner agency/organization for the purpose. The MOA should include the institutional arrangements for managing the sites, including the creation of management council and provision or designation of staff or volunteers for on-site management.

2. Locally-Managed Marine Protected Area

Marine turtle nesting sites may be managed as part of locally-managed marine protected area in accordance with DAO 2016-26 or the Coastal Marine Ecosystems Management Program (CMEMP). Marine turtle protection activities should be included in the management plans of locally-managed marine protected areas.

3. Partnership Agreement with Private Institutions

Nesting sites, especially those fronting/adjacent to private properties, can be managed as part of business corporate social responsibility. A partnership agreement engaging the business/private entity can be established for the purpose.

The DENR may also promote the engagement of private resort owners in the management of marine turtle nesting beaches through the Adopt-A-Wildlife Species-Program in accordance with DENR Administrative Order Number 2010-16

(Establishing the “Adopt-a-Wildlife Species Program” and Providing the Guidelines Governing the Implementation thereof).

4. Nesting Sites in Protected Areas

Protection and monitoring of nesting sites within Protected Areas as described under Section IV and Section V shall be undertaken as part of the regular implementation of the Biodiversity Monitoring System (BMS). As such, the annual work plan of Protected Areas where nesting sites are located, shall include marine turtle nesting site monitoring and protection as among the work indicators.

V. Recommended activities in managed nesting habitats

A. Nest monitoring

Nesting incidence monitoring should be undertaken during the nesting season. Nesting season may vary from species to species and location. Managers should therefore be familiar with such information gathered from the nest site validation survey undertaken under Section II.2. Nesting incidence monitoring is undertaken as follows:

1. Visit areas where marine turtles are known to nest identified during Key Informant interviews. Map the nesting site using GPS to get the area (in hectares) utilized by marine turtles. This would define the nesting site;
2. Trained people or volunteers shall be assigned to regularly traverse or walk the known nesting beaches during the nesting season. As necessary, patrolling of the beach should be conducted at night and early morning;
3. Observe along the latest high tide line;
4. Record all crawls observed and indicate if the crawl is fresh or not. If possible, identify the species based on the crawl marks. Also record presence and frequency of the crawls. Fill out the nesting incidents monitoring form, “**Annex C**”;
5. If a nest is found, acquire the GPS location of the nest;
6. Observe location of nest – if nest is in a secure spot, leave it as it is;
7. However, if nest and eggs would be reached/inundated by high tide or storm surges, collect the eggs following standard protocol and transfer to a higher location. The nest should be protected by placing a plastic mesh around it, approximately 60cm in diameter and 60cm in height. Carefully dig a trench around the nest and bury about 20cm of the plastic mesh for stability. A second layer of fence may be placed 1 meter around the smaller plastic mesh. **Annex D** provides an illustration of this procedure;
8. Indigenous materials shall only be used in protecting the nest, i.e. bamboo, wood, etc. The use of any material made of metal is strongly discouraged as this may affect the development of the hatchlings in the nest;

9. The nest shall be monitored for a minimum of 45 days and a maximum of 70 days after laying. Daily monitoring of the nest should be conducted at day 30 after laying. Hatchlings would usually emerge during the cooler times of the day and not all at the same time. Hatchling emergence takes about 3 to 5 days. The nest should be monitored daily after hatchlings start to emerge;
10. The hatchlings should be released as soon as they emerge. If such is not feasible, the hatchlings should be placed in a tub with wet sand or cloth (not water!) and covered with a soft, damp cloth until the time of release. Release of the hatchlings is preferred during dusk or dawn;
11. Assisting the emergence of the hatchlings by excavation is strongly discouraged. Hatchlings in the nest vary in development and exposing them to the elements may have detrimental effects;
12. Five days after the first emergence of the hatchlings, the nest may be excavated to evaluate the contents and possibly assist trapped hatchlings;
13. Nesting incidence monitoring, including release should be properly documented in the nesting incidence monitoring form (**Annex C**) and submitted to the DENR field officer overseeing the activity or to the DENR CENRO/PENRO concerned.

VI. Managing Threats of Marine Turtle Nesting Habitats

- A. **Sound Pollution:** Noise should be reduced/minimized within nesting grounds especially during the nesting seasons. Nesting marine turtles easily get startled with noise and abandon/discontinue the nesting process on site.
- B. **Light Pollution:** Excessive artificial lights along the beach can disorient nesting marine turtles, abandon the nesting process and relocate. These can also be fatal to hatchlings as they tend to move towards the lights leading them away from the ocean.

Lights near or along nesting beach are placed low if cannot be totally turned off. Motion-activated lights and low pressure sodium vapor lights (yellow lights) are recommended to replace high-intensity lights. Light only the intended object or area and kept close to the ground, directed and shielded. Suggested installation of lights along or near the beach that are friendly to nesting marine turtles and hatchlings is illustrated in **Annex E**.

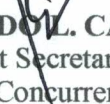
Consideration should also be given to blocking light spill from buildings near nesting beaches. This should include block-out blinds or shutters for transparent portions of a building, like glass windows and balconies, to reduce visible light transmittance values.

- C. **Marine Debris:** Logs may be washed ashore during natural calamities like typhoons and heavy rain storms which can block the path of nesting marine turtles and hatchlings. Discarded fishing nets, nylon ropes and the like, can entangle marine turtles coming up the beach to lay their eggs or returning back to the sea after nesting. Nesting beaches should be free from these debris and should regularly be removed.

VII. Supervision, Monitoring and Reporting

1. In any of the management modalities described in Section III which may be adopted for a particular managed nesting site, a MOA/Partnership Agreement shall be executed between the DENR and the partner LGU, or NGO/PO or private/business entity;
2. An annual program of activities shall be agreed upon with the partner LGU/ NGO or PO/private business that integrates the recommended management activities under Section IV and V hereof. The initial work program which shall be updated annually should form an integral part of the MOA/Partnership Agreement;
3. Support for activities under the work program of managed nesting site including monitoring shall be included in the corresponding work and financial plan and budgetary request of DENR Field Offices;
4. The DENR Field Office concerned shall undertake supervision and monitoring of site management activities at least on a quarterly basis;
5. A quarterly report on activities undertaken in the managed marine turtle nesting habitat, including accomplished standard data forms shall be submitted by DENR Field Offices to their respective Regional Office which in turn shall form part of the consolidated regional report on wildlife conservation submitted quarterly to BMB.

For guidance and compliance.


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ANNEX A. INTERVIEW FORM

(Habitat survey, nesting/sighting verification, pressure-state-response)

1. Petsa ng Interview: _____
2. Lugar: _____
3. Tagatugon (respondent)
4. Pangalan _____ Edad _____
5. Kasarian () Lalaki () Babae Status () single () may asawa {bilang ng anak _____}
6. Angkan (pinagmulan ng lahi) _____
7. Hanap buhay _____
8. Tirahan _____
9. May sariling bangka () meron () wala () nagrerenta
10. Klase ng bangka () de-motor () de-sagwan () iba pa _____
11. Laki ng bangka (metro?) _____ Bilang ng taong pwedeng sumakay _____
12. Uri/klase ng pangingisda (fishing operation) _____
13. Oras/panahon ng pangingisda _____
14. Lugar kung saan nangingisda _____
15. Nakakita na po ba kayo ng pawikan? () oo () hindi
16. Sa buong taon, tuwing kailan kayo nakakakita ng pawikan?

Buwan (month/s of the year)	Bilang ng pawikan na nakikita	Lugar saan nakikita		Laki ng pawikan na nakikita	Ginagawa ng pawikan nung nakita	Uri ng pawikan na nakikita (species)	Iba pang komento
		Pangalan ng beach	Pangalan ng dagat				

17. Sa inyong palagay, ang dalas po ba ng mga nakikitang pawikan ay:

() dumadami () umu-unti () di nagbago

18. Sa inyong palagay, ano kaya ang dahilan nito?

19. Kapag may nakikitang pawikan, ano po ang ginagawa ninyo?

☐ hinahayaan lang

☐ hinuhuli at ... ☐ kinakatay ☐ ginagawang alaga ☐ inirereport o dinadala
sa awtoridad

☐ iba pa _____

20. May pagkakataon na po ba na may nahuli kayong pawikan sa inyong pangingisda?

☐ meron ☐ wala

21. Sa anong paraan ng pangingisda mas may nahuhuling pawikan?

22. Sa buong taon, tuwing kailan kayo nakakahuli ng pawikan?

Buwan (month/s of the year)	Bilang ng pawikan na nahuhuli	Lugar saan nahuhuli		Laki ng pawikan na nahuhuli	Ginagawa ng pawikan nung nahuli	Uri ng pawikan na nahuhuli (species)	Iba pang komento
		Pangalan ng beach	Pangalan ng dagat				

23. Kapag may nahuhuling pawikan, ano ang ginagawa ditto?

☐ pinapakawalan

☐ dinadala sa pampang para... ☐ katayin ... { } lutuin { } ibenta [presyo { } pang regalo

☐ gawing alaga

☐ dalhin sa awtoridad

☐ iba pa _____

24. Alam po ba ninyo na ipinagbabawal ang paghuli at pagkatay ng pawikan?

☐ oo ☐ hindi

25. Anong ahensiya po ang alam ninyong nagpapatupad ng mga batas na ito?

☐ DENR ☐ Fisheries ☐ Pulis/Militar ☐ Mayor/LGU ☐ iba pa

26. Napapatupad ba ang mga batas dito tungkol sa pawikan? ☐ oo ☐ hindi

27. May alam po ba kayo na nahuli at naparusahan dahil sa paglabag sa mga batas ukol sa pawikan?

() meron () wala

28. Ano po ang nadinig/nalaman ninyong kaparusahang ipinataw?

29. Sa inyong palagay, mahalaga ba na ipagbawal ang pagkatay/paghuli/pagbenta ng mga pawikan?

() oo () hindi

30. Bakit po kaya?

ANNEX A.1 HABITAT ASSESSMENT AND EVALUATION

1. Date of Assessment: _____
2. Location: _____
3. GPS Coordinates: _____
4. Description of Sand: () black/gray () white () mixed () others _____
 () fine () coarse () with coral rubble () mixed with soil
 Other findings: _____

5. Beach Vegetation (*list species in table below*):

6. Beach Measurements:

Details	Measurement (meters)	GPS Coordinates
Beach length* (<i>measure perpendicular length of marine turtle nest to the highest tide mark</i>)		
Beach width (<i>measure parallel length of beach on two points, noting only areas as possible nesting ground</i>)		

* NOTE: Add more rows if more than one nest was reported along same beach

7. Nesting Abundance:
8. Marine turtle tracks seen during visit: () yes () no
9. Number of complete track/s (*tracks coming up the beach & going down*): _____
10. Number of incomplete track/s (*tracks either coming up the beach only or going down only*): _____
11. Marine turtle track details: Outer track width (cm): _____
 Inner track width (cm): _____
12. Marine turtle nest/s seen during visit: () yes () no
 If yes, number of active nest/s: _____ number of inactive/old nest/s: _____
13. With signs of predation: () yes () no
 If yes, identification of possible predator: _____
14. Marine turtle hatchling tracks seen during visit: () yes () none
15. Marine turtle eggs seen: () yes () yes, but no signs of development () none
16. Marine turtle egg shells seen: () yes () none

Other Observations during visit:

ANNEX B. REPORTED MARINE TURTLE NESTING SITES IN THE PHILIPPINES

Region 1	
	Barangay Baruyen, Bangui, Ilocos Norte
	Barangay San Lorenzo, Bangui, Ilocos Norte
	Barangay Namruangan, Cabugao, Ilocos Sur
	Barangay Fuerte, Caoayan, Ilocos Sur
	Barangay Bia-o, Santa Maria, Ilocos Sur
	Barangay Cabangtalan, Sinait, Ilocos Sur
	Pagsanahan Norte, Badoc, Ilocos Norte
	Barangay Bacuit Norte, Bauang, La Union
	Barangay Dalumpinas Oeste, San Fernando, La Union
	Sitio Tawi-tawi, Barangay Poro, San Fernando, La Union
	Purok 3, Barangay San Francisco, San Fernando, La Union
	Barangay Ili Norte, San Juan, La Union
	Barangay Panicsican, San Juan, La Union
	Sitio Cabungaoan, Barangay Ilio-ilio, Burgos, Pangasinan
	Mindoro, Vigan City, Ilocos Sur
	Barangay Urbiztondo, San Juan, La Union
	Bolos Point, Gattaran, Cagayan
Region 2	
	Mahatao, Basco, Batanes
	D. Leano, Claveria, Cagayan
	Disvayangan Beach, Hanib, Mahatao, Batanes
	Barangay Nagatatan, Pamplona, Cagayan
	Barangay Biduang, Pamplona, Cagayan
	Barangay Allasitan, Pamplona, Cagayan
	Barangay Nagtupacan, Pamplona, Cagayan
	Barangay Centro 1, Claveria, Cagayan
	Barangay Centro 5, Claveria, Cagayan
	Barangay Taggat Sur, Claveria, Cagayan
	Barangay Dagueray, Sanchez Mira, Cagayan
	Barangay Marzan, Sanchez Mira, Cagayan
Region 3	
	Pinanuktukan, Cozo, Casiguran, Aurora
	Anawangin Bay, Pundaquit, San Antonio, Zambales
	Barangay Nagbalayong, Morong, Bataan
	Sitio Aniasan, Barangay Qiunawan, Bagac, Bataan
	Barangay Quinawan Beach, Bagac, Bataan
	Batangas II, Mariveles, Bataan
	Ipag Mauakis, Mariveles, Bataan
	Sitio Sampaloc, Barangay Cawag, Subic, Zambales
	Paysawan Beach, Bagac, Bataan
	Cabayo Beach, Banawang, Bagac, Bataan
	Barangay Pag-asa, Bagac, Bataan
	Acuzar Beach, Barangay Pag-asa, Bagac, Bataan

	Barangay Saysain, Bagac, Bataan	
	Barangay Cabayo, Bagac, Bataan	
	Barangay Paysawan, Caybobo, Bagac, Bataan	
	Luz, Kitang II, Limay, Bataan	
	Sitio Wain, Barangay Biaan, Mariveles, Bataan	
	Sitio Talain, Barangay Biaan, Mariveles, Bataan	
	Townsite, Pina-apugan, Mariveles, Bataan	
	Sitio Matiku, Barangay Sabang, Morong, Bataan	
	Anvaya Cove, Barangay Mabayo, Morong, Bataan	
	Sitio Fuerte, Barangay Poblacion, Morong, Bataan	
	Botolan Point, Zambales	
	Binuclutan, Botolan, Zambales	
	Taltug, Panan, Botolan, Zambales	
	Porac, Botolan, Zambales	
	Barangay Sinabacan, Candelaria, Zambales	
	All Hands Beach Resort, Olongapo City, Zambales	
	Baloy Beach, Barreto, Olongapo City, Zambales	
	Waterfront Resort, Olongapo City, Zambales	
	Caarusipan, Barangay San Miguel, San Antonio, Zambales	
	Capones Island, Pundaquit, San Antonio, Zambales	
	Nagsasa Beach, San Antonio, Zambales	
	Talisayen, San Antonio, Zambales	
	Sinanbuangan, San Agustin, Iba, Zambales	
	Barangay Dela Paz, San Narciso, Zambales	
	Camayan Beach, Subic Bay Freeport Zone, Zambales	
	Dungaree Beach, Subic Bay Freeport Zone, Zambales	
	Grande Island Beach, Subic Bay Freeport Zone, Zambales	
	Sitio Agasuhin, Barangay Cawag, Subic, Zambales	
CALABARZON		
	Barangay Lumaniag, Lian, Batangas,	
	Fortune Island, Nasugbu, Batangas,	
	Sitio Matuod, Barangay Binubusan, Lian, Batangas	
	Sitio Biga, Barangay Hugom, San Juan, Batangas	
	Barangay Balaytigue, Punta Fuego, Nasugbu, Batangas	
	Batangas City, Sta. Clara, Purok 1	
	Sitio Castro, Sta. Rita Aplaya, Batangas City	
	Barangay Camastilisan, Calaca, Batangas	
	Salong, Calaca, Batangas	
	Nonong Casto, Lemery, Batangas,	
	Barangay San Diego, Lian, Batangas	
	Barangay Bucana, Nasugbu, Batangas	
	Munting Buhangin Beach, Barangay Natipuan, Nasugbu, Batangas	
	Barangay Wawa, Nasugbu, Batangas	
	Barangay Abung, San Juan, Batangas,	
	Barangay Calubcub II, San Juan, Batangas	
	Barangay Laiya Aplaya, San Juan, Batangas	

	Barangay Pinagbayanan, San Juan, Batangas	
	Barangay Ticalan, San Juan, Batangas	
	Laiya Ibabaw, San Juan, Batangas	
	Labac, Naic, Cavite	
	Julugan VII, Tanza, Cavite	
	Barangay Bucana, Ternate, Cavite	
	San Juan 1, Ternate, Cavite	
	San Roque, Tayabas Bay, Sariaya, Quezon	
	Barangay Ibabang Kalilayan, Unisan, Quezon	
	Barangay Castanas, Sariaya, Quezon	
	Barangay Caridad, Ilaya, Atimonan, Quezon	
MIMAROPA		
	Barangay Masiga, Gasan, Marinduque	
	Barangay Mompong, Sta. Cruz, Marinduque	
	Barangay Lupac, Boac, Marinduque	
	Poctoy White Beach, Torrijos, Marinduque	
	Apo Reef, Sablayan, Occidental Mindoro	
	Pandan Island, Sablayan, Occidental Mindoro	
	Punta Poblacion, Sablayan, Occidental Mindoro	
	Purok Malvar, Barangay Pag-asa, San Jose, Occidental Mindoro	
	Sito Tabuk, Buenavista, Sablayan, Occidental Mindoro	
	Gloria, Guimbonan, Oriental Mindoro	
	Las Villas de Natividad Resort, Aninuan, Puerto Galera, Oriental Mindoro	
	Barangay Gloria, Mansalay, Oriental Mindoro	
	Barangay San Isidro, Roxas, Oriental Mindoro	
	Anahaw Island View Resort, Barangay Balete, Calapan, Oriental Mindoro	
	Barangay Sugui, Calapan, Oriental Mindoro	
	Sunset Beach, Cadlao Island, Buena Suerte, El Nido, Palawan	
	Sitio Cagbatang, Pasadeña, El Nido, Palawan	
	Kalayaan/Pag-asa Island, Palawan	
	Tanobon Island, Busuanga, Palawan	
	Dimakya Island, Busuanga, Palawan	
	Kota Cay, Kalayaan, Palawan	
	Panata Cay, Kalayaan, Palawan	
	Tubbataha Reef Natural Park, Cagayancillo, Palawan	
	Banwa Island, Tumarbong, Roxas, Palawan	
	Cudugnon Beach, Bebeladan, El Nido, Palawan	
	Sitio Pacalsada, Corong-corong, El Nido, Palawan	
	Entalula Island, Bacuit Bay, El Nido, Palawan	
	Sitio Cagbatang, Pasadeña, El Nido, Palawan	
	Arena Island, Narra, Palawan	
	Purok Pag-asa, Panacan, Narra, Palawan	
	Purok Pagkakaisa, Panacan, Narra, Palawan	
	Nagtabon Beach, Bacungan, Puerto Princesa, Palawan	
	Sitio Tagminatay, Barangay Bacungan, Puerto Princesa, Palawan	
	Miniloc Island, El Nido, Palawan	

	Barangay Simpokan, Puerto Princesa, Palawan	
	Daluyon Beach, Cabayugan, Sabang, Puerto Princesa, Palawan	
	Berong, Quezon, Palawan	
	Tagkawayan, Bacungan, Puerto Princesa, Palawan	
	Taladyong, Bacungan, Puerto Princesa, Palawan	
	Cabuyao, Napsan, Puerto Princesa, Palawan	
	Labtay, Napsan, Puerto Princesa, Palawan	
	Little Boracay, Napsan, Puerto Princesa, Palawan	
	Sto. Nino, Napsan, Puerto Princesa, Palawan	
	Kaibigan Soul Camp beach area, Napsan, Puerto Princesa, Palawan	
	Bantolino, Bagumbayan, Puerto Princesa, Palawan	
	Lalawigan, Simpokan, Puerto Princesa, Palawan	
	Bualbualan, Simpokan, Puerto Princesa, Palawan	
	Glory Beach resort area, Simpokan, Puerto Princesa, Palawan	
	Caliagan, Culandanan, Aborlan, Palawan	
	Cabwangan, Culandanan, Aborlan, Palawan	
	Bubusawen, Apurawan, Aborlan, Palawan	
	Secret Paradise, Port Barton, San Vicente, Palawan	
	Coconut Island Garden Resort, Port Barton, San Vicente, Palawan	
	Modessa Island Resort, Tumarbong, Roxas, Palawan	
	Cabalian, Tablas Island, Agmanic, Sta. Fe, Romblon	
	Suli, Tablas Island, Agmanic, Sta. Fe, Romblon	
	Sibuyan Island, Marigondon, Cajidiocan, Romblon	
	Simara Island, Ilijan, Corcuera, Romblon	
	Simara Island, Tacasan, Corcuera, Romblon	
	Barangay Batiano, Odiongan, Romblon	
	Barangay Budiong, Odiongan, Romblon	
	Barangay Gabawan, Odiongan, Romblon	
	Barangay Tumingad, Odiongan, Romblon	
	Barangay Cobrador, Romblon, Romblon	
	Barangay Dubduban, San Agustin, Romblon	
	Barangay Hinugasan, San Agustin, Romblon	
	Barangay Bachawan, San Agustin, Romblon	
	Barangay Cabolutan, San Agustin, Romblon	
	Barangay Sugod, San Agustin, Romblon	
	Centro Long Beach, San Agustin, Romblon	
	Barangay Lanas, Carabao Island, San Jose, Romblon	
	Barangay Bonga, Sta. Maria, Romblon	
	Barangay Concepcion Sur, Sta. Maria, Romblon	
	Barangay Sto. Niño, Sta. Maria, Romblon	
	Barangay Agpanabat, Romblon, Romblon	
	Barangay San Roque, Calatrava, Romblon	
	Sitio Uno, Buangan, Torrijos, Marinduque	
	Barangay Ligaya Public Beach, Odiongan, Romblon	
Region 5		
	Paniman, Caramoan, Camarines Sur	

	Canlubi, Sioron, Gigmoto, Catanduanes	
	Sibanban Saday, Sioron, Gigmoto, Catanduanes	
	Ilawod, Sioron, Gigmoto, Catanduanes	
	Sawa, Sioron, Gigmoto, Catanduanes	
	Badian, Oas, Albay	
	Misibis (Cagraray Island), Mosboron, Bacacay, Albay	
	Barangay Rawis, Legazpi City, Albay	
	Sagurong, San Miguel Island, Tabaco, Albay	
	Barangay Maramba, Oas, Albay	
	Barangay Pang-pang, Donsol, Sorsogon	
	Barangay Guijalo, Caramoan, Camarines Sur	
	Barangay Tinalmud Viejo, Libmanan, Ragay Gulf, Camarines Sur	
	Barangay Balogo, Pasacao, Camrines Sur	
	Barangay Talisoy, Virac, Catanduanes	
	Magnesia del Sur, Virac, Catanduanes	
	Barangay Dariao, Caramoran, Catanduanes	
	Sitio Palumbanes, Barangay Toytoy, Caramoran, Catanduanes	
	Quidolog, Basud, Prieto Diaz, Sorsogon	
	Sitio Calagoto, Barangay Bangate, Barcelona, Sorsogon	
	Barangay Buhang, Bulusan, Sorsogon	
	Barangay Rawis, Legazpi City, Albay	
	Pinitan, Caramoan, Camarines Sur	
	Sitio Labanay, Barangay Magnesia, Virac, Catanduanes	
	Sitio Imacoto, Barangay Cagmanaba, Oas, Albay	
	Bahao, Libmanan, Camarines Sur	
	Barangay Caranan, Pasacao, Camarines Sur	
Region 6		
	Aring / Cadajug, Laua-an, Antique	
	Sitio Aring, Barangay Bagumbayan, Laua-an, Antique	
	Barangay Madrangca, San Jose, Antique	
	Barangay Arobo, Tobias Fornier, Antique	
	Barangay Crossing Dapuyan, San Joaquin, Iloilo	
	Barangay Nauhang, Sipalay, Negros Occidental	
	Barangay Bulata, Cauayan, Negros Occidental	
	Danjungan Island, Cauayan, Negros Occidental	
	Barangay Manoc-manoc (Boracay Island), Malay, Aklan	
	Panagatan Island (Caluya), Antique	
	Barangay Lipata, Culasi, Antique	
	Malalison Island, Culasi, Antique	
	Ave. Maria Islet, Punta Lawi, Jordan, Guimaras	
	Sitio Guisi, Barangay Dolores, Nueva Valencia, Guimaras	
	Sitio Panganawan, Barangay Sangke, Hinobaan, Negros Occidental	
	Tabuk-suba, Barangay 1, Hinobaan, Negros Occidental	
	Barangay Patria, Pandan, Antique	
	Barangay Dionela, Pandan, Antique	
	Barangay Dumrog, Pandan, Antique	

	Calumpang, Poblacion, Cauayan, Negros Occidental	
	Poblacion 3, Dauin, Negros Oriental	
Region 7		
	Apo Island, Dauin, Negros Oriental	
	Sandugan, Larena, Siquijor	
	Basdaku, Barangay Saavedra, Moalboal, Cebu	
	Alejawan, Jagna, Bohol	
	Hilantagaan Island, Sta. Fe, Cebu	
	Barangay Lipayo, Dauin, Negros Oriental	
	Barangay Maayong Tubig, Dauin, Negros Oriental	
	Candanay Sur, Siquijor	
	Solangon, San Juan, Siquijor	
	Barangay Danjugan Island, Cauayan , Negros Occidental	
Region 8		
	Poblacion, Barangay 13, Dolores, Eastern Samar	
	Barangay Punta Maria, Borongan City, Eastern Samar	
	Napantao, San Francisco, Southern Leyte	
	Barangay Santa Sofia, Padre Burgos, Southern Leyte	
Region 9		
	Bangaan Island, Tungawaan, Zamboanga Sibugay	
	Buluan Island, Ipil, Zamboanga Sibugay	
	Baguan Island, Turtle Islands Wildlife Sanctuary, Tawi-tawi	
	Langaan Island, Turtle Islands, Wildlife Sanctuary, Tawi-tawi	
	Lihiman Island, Turtle Islands Wildlife Sanctuary, Tawi-tawi	
	Taganak Island, Turtle Islands Wildlife Sanctuary, Tawi-tawi	
	Bancauan Island, Mapun, Tawi-tawi	
	Sta. Cruz Island, Zamboanga City	
	Little Sta. Cruz Island, Zamboanga City	
	Panikian Island, Pitogo, Zamboanga del Sur	
	Triton Island, Pitogo, Zamboanga del Sur	
	Sitio Bohol, Barangay Linguisan, Tungawan, Zamboanga Sibugay	
	Bacungan Island, Locomo, Zamboanga City	
	Sibakya, Sanito, Zamboanga Sibugay	
	Ipil, Sanito, Zamboanga Sibugay	
	Buluan Island, R.T. Lim, Zamboanga Sibugay	
	Pandilusan Island, Payao, Zamboanga Sibugay	
	Buluan Island, Barangay Buluan, Ipil, Zamboanga Sibugay	
	Osukan, Labason, Zamboanga del Norte	
	Poblacion East, Salug, Zamboanga del Norte	
	Barangay Maras, Sindangan, Zamboanga del Norte	
	Banigan, Liloy, Zamboanga del Norte	
	Patawag, Liloy, Zamboanga del Norte	
	Murcielagos Island, Labason, Zamboanga del Norte	
	Malintubuan, Labason, Zamboanga del Norte	
	Barangay Kayok, Liloy, Zamboanga del Norte	
	Barangay Linay, Manukan, Zamboanga del Norte	

	Sunset Boulevard, Dipolog City, Zamboanga del Norte	
	Purok Ofisco, Olingan, Dipolog City, Zamboanga del Norte	
	Mamad, Zamboanga del Norte	
	Purok 4, Barangay Dos, Katipunan, Zamboanga del Norte	
	Barangay Bibilik, Dumalinao, Zamboanga del Sur	
	Sitio Tadlao, Barangay Bagong Silang, Dumalinao, Zamboanga del Sur	
	Purok Malasugi, Barangay Balanit, Zamboanga del Sur	
	Barangay Lower Bayao, Tukuran, Zamboanga del Sur	
	Barangay Danan, Vincenzo Sagun, Zamboanga del Sur	
	Barangay Alindahaw, Tukuran, Zamboanga del Sur	
	Barangay Bulanit, Labangan, Zamboanga del Sur	
	Upper Calarian, Zamboanga City	
	Sitio San Juan, Barangay Don Jose Aguirre, Manukan, Zamboanga del Norte	
	Barangay Alegria, Baliguian, Zamboanga del Norte	
	Brgy. Lawis, Sindangan, Zamboanga del Norte	
	Barangay San Pedro, Dapitan City, Zamboanga del Norte	
	Sitio Dequiz, Barangay Poblacion, Zamboanga del Norte	
	Barangay Sicayab, Dipolog City, Zamboanga del Norte	
	Recodo, Zamboanga City	
	Purok Lourdez, Barangay Don Jose Aguirre, Manukan, Zamboanga del Norte	
	Dohinob, President Manuel Roxas, Zamboanga del Norte	
	San Antonio, Manukan, Zamboanga del Norte	
	Sitio Dolongin, Barangay Matiag, Siocon, Zamboanga del Norte	
Region 10		
	Sitio Kibela, Barangay Cantaan, Guinsiliban, Camiguin	
	Loguilo, Alubijid, Misamis Oriental	
	Purok 7, Inobulan, Misamis Oriental	
	Capcum Beach, Duka Bay, Medina, Misamis Oriental	
	Zone 5, Barangay Bayabas, Cagayan de Oro City	
	Barangay Bonbon, Cagayan de Oro City	
	Barangay San Roque, Mantigue Island, Mahinog, Camiguin	
	Sitio Cabua-an, Poblacion, Mambajao, Camiguin	
	Barangay Poblacion, Linamon, Lanao del Norte	
	Sitio Tambaling, Purok 2 Baculio, Barangay Pedrosa, El Salvador, Misamis Oriental	
	Barangay Pagahan, Initao, Misamis Oriental	
	Tabok, Bobontugan, Jasaan, Misamis Oriental	
	Minsalag, Bonifacio Aquino, Magsaysay, Misamis Oriental	
	Purok 1, Barangay Damayuhan, Magsaysay, Misamis Oriental	
	Barangay Kandiis, Magsaysay, Misamis Oriental	
	Barangay San Isidro, Magsaysay, Misamis Oriental	
	Poblacion, Naawan, Misamis Oriental	
	Barangay Barra, Opol, Misamis Oriental	
	Jingle Bell Beach, Tabuk Sur, Oroquieta City, Misamis Oriental	
	Sitio Kibila, Cantaan, Guinsiliban, Camiguin	

	Barangay Poblacion, Mambajao, Camiguin	
	Pedro sa Baculio, El Salvador City, Misamis Oriental	
	Sinaloc, El Salvador City, Misamis Oriental	
	Burnay, Gigatum, Misamis Oriental	
	Pangayawan, Gigatum, Misamis Oriental	
	Baluarte, Tagoloan, Misamis Oriental	
	Casulog, Salay Misamis Oriental	
	Ampenican, Salay, Misamis Oriental	
	Baybay, Alubijid, Misamis Oriental	
	Poblacion, Initao, Misamis Oriental	
	Gimaylan, Libertad, Misamis Oriental	
	Boyogon, Medina, Misamis Oriental	
Region 11		
	Punta Dumalag, Matina Aplaya, Davao City	
	Binugao, Toril, Davao City	
	Canibad, Barangay Aundanao, IGACOS, Davao del Norte	
	Dumlao Resort, Kaputian, San Remigio, IGACOS, Davao del Norte	
	Isla Cristina Beach, Cogon, Talikud, IGACOS, Davao del Norte	
	Babusanta Beach Resort, Barangay Dadatan, Talikud Island, IGACOS, Davao del Norte	
	Lawigan, Mati, Davao Oriental	
	Sitio Cabilon 1, Kinanga, Don Marcelino, Davao del Sur	
	Malita, Davao del Sur	
	Guang-guang, Dahican, Mati City, Davao Oriental	
Region 12		
	Pinol, Maitum, Saranggani	
	Sitio Lobo, Barangay Lumasal, Maasim, Sarangani	
	Barangay Ladol, Alabel, Sarangani	
	Sitio Kapayapaan, Lower Sangay, Kalamansig, Sultan Kudarat	
	Barangay Suli, Kiamba, Saranggani	
	Linek, Barangay Nalus, Kiamba, Saranggani	
	Purok Ipil-ipil, Barangay Nalus, Kiamba, Sarangani	
	Barangay Glan Padidu, Glan, Sarangani	
	Barangay Old Poblacion, Maitum, Saranggani	
	Barangay Mabay, Maitum, Saranggani	
Region 13		
	San Agustin, Carmen, Agusan del Norte	
	Vinapor, Carmen, Agusan del Norte	
	Singoroy Island, Baculin, Hinatuan, Surigao del Sur	
	Barangay Lapinigan, Claver, Surigao del Norte	
	Lagaylay, Cahayagan, Carmen, Agusan del Norte	
ARMM		
	Langil Island, Tuburan, Basilan	
	Bongo Island, Limbayan, Parang, Maguindanao	
	Barangay Sambulawan, Sultan Kudarat, Maguindanao	
	San Miguel Island, Bancauan, Mapun, Tawi-tawi	

ANNEX C. MARINE TURTLE NESTING INCIDENCE MONITORING FORM

Location/Site (Indicate Sitio/Purok, Barangay, Municipality, Province/City): _____

Date of Monitoring: _____

Marine turtle tracks seen: () yes () no

Number of complete track/s (Fig. 1): _____

Number of incomplete track/s (Fig. 2): _____

Marine turtle track details (Fig 3): Outer track width (cm): _____

Inner track width (cm): _____

Marine turtle nester seen: () yes () no

If yes, indicate species: _____

Nest location (GPS Coordinates): _____

Translocated: () yes () no

If yes, indicate reason for transfer: _____

Indicate new location: _____

Date of Nesting	Number of Eggs (Clutch Size)	Number of Hatchling/s Emerged	Date of Emergence	Number of Hatchlings Released	Date of Release	Remarks

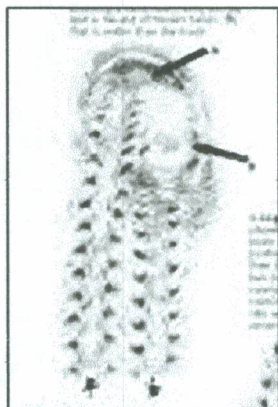


Figure 1. Complete nesting tracks

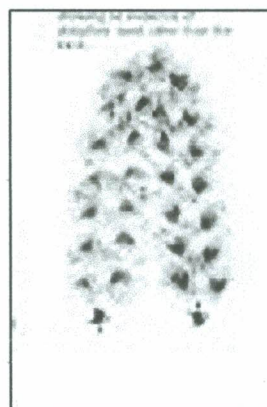


Figure 2. Non-nesting tracks

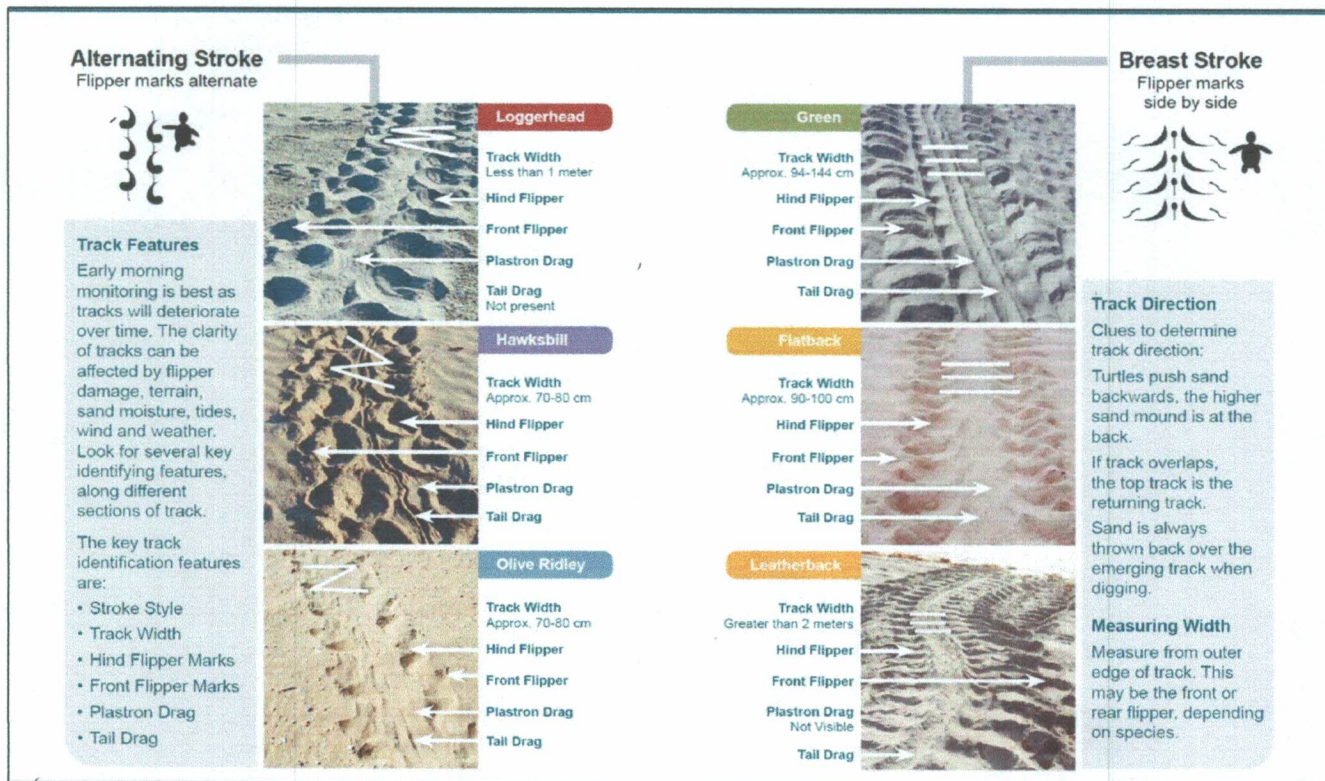
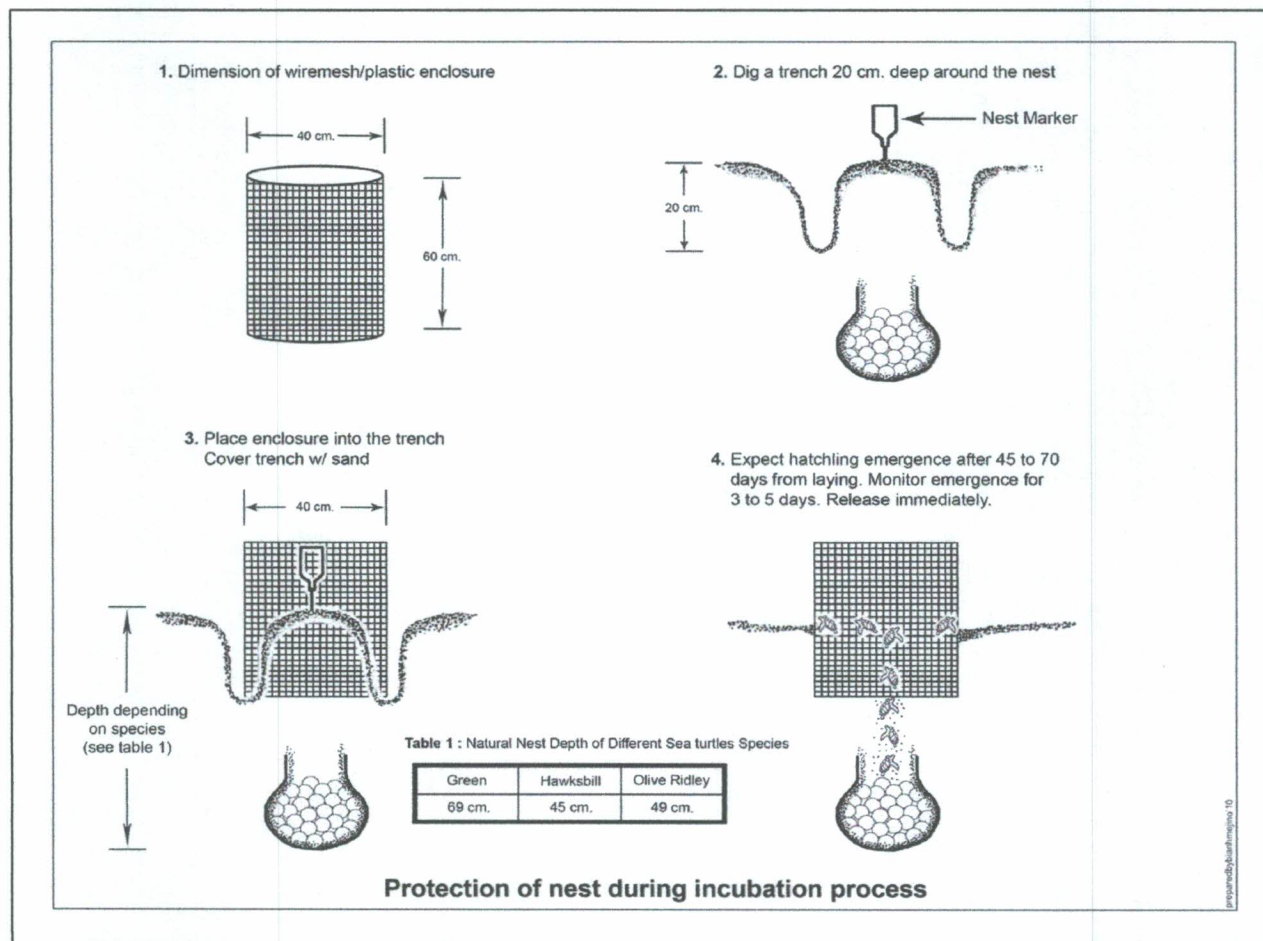


Figure 3. Nesting tracks of Different Marine Turtle Species

ANNEX D. PROTECTION OF MARINE TURTLE EGGS



ANNEX E. RECOMMENDATIONS TO MINIMIZE EXCESSIVE ARTIFICIAL LIGHTS IN NESTING BEACHES (Source: National Light Pollution Guidelines for Wildlife, Commonwealth of Australia 2020)

