

Sustainable Dolphin Watching Guidelines

Direction of approach

- Boat should not approach directly behind, head on or cross the path of dolphin pod at any point.
- Boat should approach dolphins from side and steer parallel to the direction of the group of dolphins or 45 degrees approaching from behind.
- If dolphins are approaching the boat, (a.) smaller boats should turn off the engine, (b.) larger boats should put into neutral and wait until dolphins swim away.
- If the dolphins are within 10-15 meters of the radius of the boat, (a.) smaller boats should turn off the engine, (b.) larger boats should put into neutral and wait until dolphins swim away.
- Do not change course or speed instantly.
- Boat should never get in between the group and the river mouth / estuary.

Speed of approach

- Speed of boat should never exceed the “no wake speed”, i.e. should be less than 7km
- Boat should always approach and depart the group of dolphins slowly and continue its normal cruising speed after the dolphins swim more than 100 away from the boat.

Engine noise

- Engine noise should be kept low at all time.
- If the operator is using an outboard engine boat, it is better to use a four-stroke rather than a two-stroke engine due to the noise level the latter produces.
- Turn off engines instead of idling, or position boat downwind to decrease noise effects for long-tail boat or outboard engine boat (speedboat).
- Captain or Pilot must be very careful, once he/she wishes to turn the engine back on again, make sure that there are no dolphins around the stern or underneath the propeller.
- Personal water craft such as jet ski and scooter should be prohibited for dolphin watching activity.

Distance

- Boat should maintain a minimum distance of 15 metres from the group.
- If the boat is not compliant with the 15-metre approach guideline, (a.) smaller boats should turn off the engine, (b.) larger boats should put into neutral and wait until dolphins swim away.
- Boat should maintain a minimum distance of 30 metres from the group if a pair mother and calf of dolphins are spotted.

Interaction time limit

- Boats should limit time with one group to a maximum 30 minutes to minimize disturbance of natural behaviour.
- Cumulative time of all dolphin-watching boats should be limited for each group.
- A maximum of three boats are allowed within 100 metres of a group at any one time.
- Only one boat is allowed within 30 meters of a group at any time. Other boats must wait outside the 30 metres radius area.
- If a second group of dolphins is spotted, it is better for another boat that is waiting in the waiting zone to approach this other group, in order to reduce the stress of the human-animal interaction.

Presence of mother and calf pairs

- Boats should be especially cautious if a mother and calf pair is sighted.
- Mother and calf should never be separated. Boat should never get in between them.
- Always use double distances with mother and calf.

Signs of agitation/stress

- If any signs of distress or agitation are observed within a group, the boat should stop pursuing it immediately and move away slowly.
- Signs of agitation or distress include, but are not limited to:
 - Vertical avoidance tactics (e.g. less time at surface, decreased resting time)
 - Increasing depth and duration of dives
 - Shift in habitat preference or use
 - Horizontal avoidance tactics (e.g. increased swimming speed, frequency of heading changes)



OTHER RESTRICTIONS

Swimming with dolphins

-No swimming with the dolphins is permitted. No persons should jump into the water with the dolphins.

Feeding and touching dolphins

-Direct contact with dolphins should never occur. No feeding or touching of the dolphins is allowed. This is for the protection of both humans and dolphins.

Temporal/seasonal restrictions

-Designate no vessel period to ensure dolphin populations have time to rest from boat pressure, noise and air pollution.

-Upon improved knowledge about the mating systems of the Irrawaddy and humpback dolphin, temporal restrictions should be developed and enforced to prevent disturbance of critical behaviours such as breeding season.

Fishing

-Fishing is not allowed during the dolphin watching activity.

Sonar and Sounder

-Sonar is not allowed to use to find dolphins. Depth sounder is only allowed for boat navigation.

Trash and rubbish

-Passengers should not be allowed to throw and trash anything into the sea.

Spatial restrictions

-Restrict the extent of dolphin watching spatially, e.g. an area within the dolphin conservation zone (based on high ecological significance – e.g. important foraging, breeding area – does not have to be large in size).

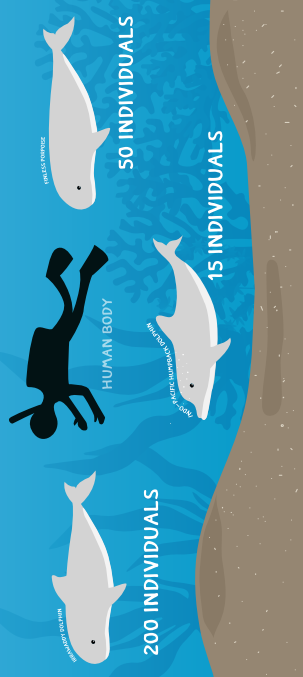
SPECIAL PERMITS

- There should be a special permit for filming / video or scientific research. Operator should always contact authority for permission if they wish to approach the animal closer and spend more time than what these guidelines indicate.

6 KEYS to be a SUCCESSFUL DOLPHIN WATCHING OPERATOR

1. – Follow the guidelines strictly.
2. – Educate and give accurate information about the dolphins they interact with.
3. – Work on marine conservation with authorities (Government or Non-Government Organization) by sharing information about sighting records or even by creating a dolphin stranding rescue network in the area.
4. – Be a good example for other operators and maintain high standards.
5. – Always look for an opportunity to learn and improve your capacity to minimize impacts on animals and the environment.
6. – Be responsible towards nature, animals, the environment, and your clients.

GETTING TO KNOW THAI-CAMBODIAN COASTAL DOLPHINS
THE PRESENCE OF DOLPHINS SIGNALS A HEALTHY ECOSYSTEM IN
THE EASTERN GULF OF THAILAND.
RESULT FROM SURVEYS IN TRAT, THAILAND 2014



“SAVE DOLPHINS”
SAVE US

HOW TO LIVE IN HARMONY WITH NATURE FOR A SUSTAINABLE WELL-BEING

IUCN, International Union for Conservation of Nature
Transboundary Dolphin Conservation Project
Trat, Thailand-Koh Kong, Cambodia

IRRAWADDY DOLPHINS are protected from international trade by CITES. The Convention on International Trade in Endangered Species of Wild Fauna and Flora, Appendix I, which forbids all commercial trade (permitted only in exceptional licensed circumstances).
Irrawaddy Dolphins are listed on the IUCN Red List of Threatened Species as “**Vulnerable**”. However, some sub-populations are classified as “Critically Endangered” such as the Mekong River and Songkhla Lake sub-populations.

CAUSES OF DOLPHIN DEATHS IN TRAT



DID YOU KNOW?
DOLPHINS ARE NOT FISH BUT “MAMMALS”

Blowhole

Dolphins breathe on the water's surface through a blowhole. They can hold their breath under water for several minutes.
* If you see live stranded dolphins, do not pour water into their blowhole as they would suffocate.

Dorsal fin

Researchers take photographs of their dorsal fins to identify individuals and estimate their populations.

Fluke

The dolphin's tail is called fluke and is a horizontal tail that moves up and down. In contrast, fish tails are vertical and move side to side.



(((Sound Waves)))

Sound waves pass through a fatty sac (melon), and are reflected back and forth to tell the direction, distance, and shape of objects. We call this “echolocation”.

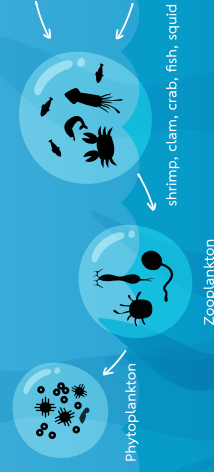
Flippers

Dolphin flippers have a set of bones similar to human hands, cat legs, bat wings or limbs of other mammals.

Mammmary glands

Dolphin's calves are able to roll their tongue like a straw and have little finger-like projections on the sides of their tongue that act like a zipper. These keep the mother's milk in the calf's mouth and keep salt water out.

DOLPHINS ARE AT THE TOP OF THE FOOD CHAIN.
THEY ARE INDICATORS OF A HEALTHY ECOSYSTEM.



HOW HUMANS AND DOLPHINS
CAN SUSTAINABLY LIVE TOGETHER

X STOP Destructive Fishing Practices

X STOP Sewage Discharges

X STOP Litter

CONSERVING NATURAL RESOURCES THROUGH ECO-TOURISM ?
GUIDELINES FOR DOLPHIN WATCHING...



1 Always move parallel to the dolphin's direction.



2 Do not approach from behind, head on or cross the path of a dolphin pod.

4 If you find a stranded dolphin, please call the rescue team of Thailand's Department of Marine and Coastal Resources

038-461-693 , 066-343-3698 (Dr. Phil)

TRAT-KOH KONG MAP

HABITAT OF COASTAL DOLPHINS



Coastal communities

The Saphanlin Dolphin Conservation Group in Laem Klad and the Dolphin Rescue Network in Mai Road recognize the importance of conserving dolphins and the abundance of marine ecosystems.

TRAT
THAILAND

KOH KONG
CAMBODIA

Peam Krasop Wildlife Sanctuary

PKWS is the largest mangrove forest in Cambodia. This area is designated as the protected area by the Cambodian Ministry of Environment. In addition, PKWS also contains internationally important wetlands called Koh Kapik Ramsar site, which is one of the four Ramsar sites in Cambodia.



THE EASTERN GULF OF THAILAND—HOME FOR DOLPHINS

Coastal dolphins can be spotted near-shore, mangrove and river mouth areas where rivers meet the sea. Rivers bring freshwater and nutrients in the form of sediment, resulting in brackish or low salinity water and in an abundance of phytoplankton as the beginning of the dolphin's food chain. That is why we often find dolphins in Trat Bay, Thailand as well as in the Peam Krasop Wildlife Sanctuary in Cambodia.

Over the past 3-4 years, a large number of dolphins have been found dead, while the birthrate is low. This has led to serious concerns about the survival of the remaining dolphin population in this area. Therefore, local and regional action is needed for successful dolphin conservation.



น่าน้ำความรู้จักกับโลมาชายฝั่งไทย-กัมพูชา

การปรากฏตัวของโลมาถือเป็นสัญญาณของความสมบูรณ์ของ
ป่าแม่น้ำ-สายต่าง ๆ ที่หลงสู่อ่าวไทย

ผลสำรวจโลมาพื้นน้ำที่จังหวัดตราด ปี 2557



“โลมาอยู่ที่ไหน”

เรียนรู้ที่จะมีถิ่นและถิ่นที่พำนักของโลมา

IUCN, International Union for Conservation of Nature
โครงการอนุรักษ์โลมาชายฝั่งทะเล
พื้นที่จังหวัดตราด ประเทศไทย จังหวัดกัมพูชา ประเทศกัมพูชา

โลมาอ่าวไทย ได้รับการคุ้มครองในระดับนานาชาติ โดยถูกจัดให้อยู่ในบัญชีประเภทที่ 1 (Appendix 1) ของอนุสัญญาว่าด้วยการค้าระหว่างประเทศ ซึ่งชนิดสัตว์ป่าและพันธุ์พืชที่ใกล้สูญพันธุ์ (Convention on International Trade in Endangered Species of Wild Fauna and Flora : CITES หรือไจโคเตส) คือ ห้าชนิดชาย ยกเว้นโลมาอ่าวไทยซึ่งจัดอยู่ในบัญชีแดงขององค์การระหว่างประเทศเพื่อการอนุรักษ์ธรรมชาติ หรือ International Union of Conservation of Nature : IUCN อยู่ในสถานะ “มีแนวโน้มใกล้สูญพันธุ์” (Vulnerable) แต่สำหรับบางกลุ่มประชากร เช่น โลมาอ่าวไทยและทะเลสาบสงขลาก็จัดอยู่ในสถานะ “มีความเสี่ยงขั้นวิกฤตต่อการสูญพันธุ์” (Critically Endangered)

สาเหตุการเพิ่มขึ้นของโลมาในจังหวัดตราด



รู้หรือไม่ว่า?

โลมาไม่ใช่ปลาแต่เป็น “สัตว์เลี้ยงลูกด้วยนม”

รูหายใจ (Blowhole)
เอาไว้หายใจเหมือนน้ำ ซึ่งโลมาจะมีอยู่ใต้น้ำหลายชนิดแล้วจะไม่ใช่เหมือนหายใจที่ปาก
- ถ้าเห็นโลมาหายใจเห็นเป็นพวยน้ำพุ่งออกมา
- รูนี้จะมี จะทำให้โลมาสามารถดำน้ำได้

ครีบหลัง (Dorsal fin)
นักวิจัยใช้ภาพลักษณ์ของครีบหลังเพื่อจำแนกตัวโลมา และคำนวณจำนวนประชากรโลมา

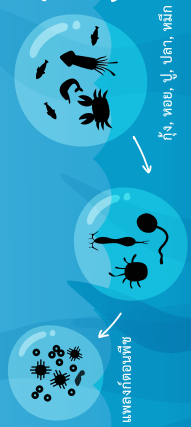
ครีบหาง (Fluke)
ครีบหางของโลมาแบบในแนวนอนเพื่อช่วยในการว่ายน้ำ ชีบ-ตง แต่ครีบหางของปลาคืออยู่ในแนวตั้งใช้ว่ายน้ำไปด้านข้าง ชีบ-ขวา

ครีบหน้า (Flippers)
มีกระดูกข้างในคล้ายกับสัตว์สี่ขาคือแขนหน้าและขาหน้า เช่น แขนของงู งูของแมว หรือปีกของค้างคาว เป็นต้น และใช้เพื่อหาอาหาร หรือการปรับทิศทางจากน้ำ

ต่อมไขมัน (Mammary glands)
ลูกโลมาจะดูดนมจากต่อมไขมันเพื่อเลี้ยงตัว และใช้พลังงานในการว่ายน้ำ

อุ้งน้ำ (Melon)
ถูกส่งน้ำขึ้นไปบน ที่เรียกว่า (Melon) และสะท้อนกลับเพื่อออกอากาศทาง และรูปร่างของอุ้งน้ำ เรียกว่า Echolocation
- โลมาใช้เพื่อหาอาหาร ด้วยการปล่อยเสียงจากอุ้งน้ำ
- ปลาใช้เพื่อหาอาหาร ด้วยการรับเสียงจากอุ้งน้ำ

โลมาอยู่บนสุดของห่วงโซ่อาหาร การคงอยู่ของโลมาจึงเป็นดัชนีชี้วัดว่าพื้นที่มีระบบนิเวศที่อุดมสมบูรณ์



ดูแลทรัพยากรให้สมบูรณ์ด้วยการท่องเที่ยวเชิงนิเวศได้อย่างไร ?

1. แล่นเรือให้ขนานที่ห่างจากเรือท่องเที่ยว
2. ไม่ตัดหญ้าหรือใส่ดอกไม้ลงในเรือ
3. ไม่ติดตามดูโลมา กลุ่มเดิมๆเกิน 30 นาที
4. หากพบเจอสัตว์ทะเลหายากอย่าถ่ายรูปหรือวิดีโอ

ให้แจ้งเจ้าหน้าที่กรมทรัพยากรทางทะเลและชายฝั่งทันที

086-661-695 , 086-345-3498 (พบเจ้าหน้าที่)

X-HUT
หยุดปล่อยน้ำเสีย

X-HUT
หยุดทิ้งขยะทะเล

X-HUT
หยุดการประมงล้างผลาญ

និកិតិវិធីក្នុងការជួយសង្គ្រោះសត្វផ្សេងៗសត្វសមុទ្រ



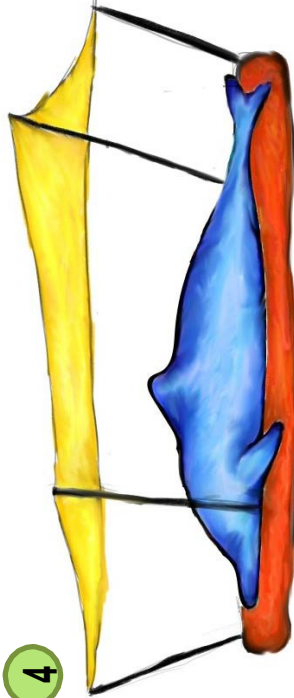
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ចូលទៅជិតសត្វផ្សោតសមុទ្រ ដោយមានការប្រុងប្រយ័ត្ន និងត្រូវនៅឱ្យឆ្ងាយពីមាត់ និង កន្ទុយរបស់វា ។ យើងត្រូវព្យាយាមធ្វើឱ្យវា នៅមួយកន្លែង ។



2

យើងត្រូវផ្សោតសមុទ្របានជាប់តាំងនៅលើផ្ទះខ្សាច់ អ្នកត្រូវដឹកនូវ វាកម្មយោងនៅជិតព្រួយចម្រើង និងរាងកាយរបស់វា ព្រមទាំងចាក់ទឹក ជួមៗចូលទៅក្នុងរន្ធដើម្បីកាត់បន្ថយសម្ពាធនាម្យន់ ។



4

ត្រូវផ្តល់ដីម្បីការពារសត្វផ្សោតសមុទ្រពីកំដៅព្រះអាទិត្យ ពីព្រោះវាអាចបង្កឱ្យសត្វនោះខ្វះជាតិទឹក ។



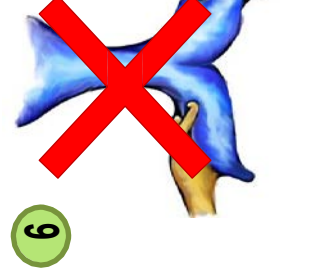
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ត្រូវរក្សាក្រុមមនុស្សនៅឱ្យឆ្ងាយ និង សំឡេងខ្លាំងនៃការត្រូវមាន កម្រិតទាប ដើម្បីជៀសវាងភាពតានតឹងដល់សត្វ ។



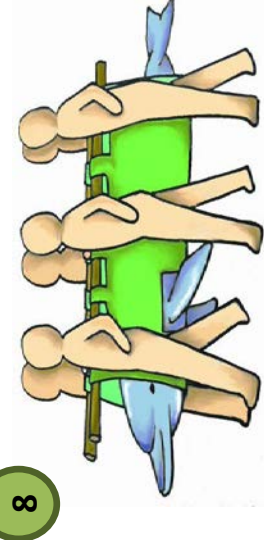
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យើងត្រូវផ្សោតសមុទ្រត្រូវបានជាប់តាំងនៅលើផ្ទះខ្សាច់មានឬ អ្នកត្រូវព្យាយាម រក្សាខ្លួនរបស់វានៅលើផ្ទះទន់ ហើយត្រូវ ប្រើកន្សែងសើម ដើម្បីរក្សាសំណើម លើស្បែករបស់វា ។ មិនត្រូវគ្របដណ្តប់រន្ធដកដង្ហើម និងព្រួយរបស់វា ជា ពិសេសមិនត្រូវចាក់ទឹកចូលទៅក្នុងរន្ធដកដង្ហើមរបស់វាទេ ។



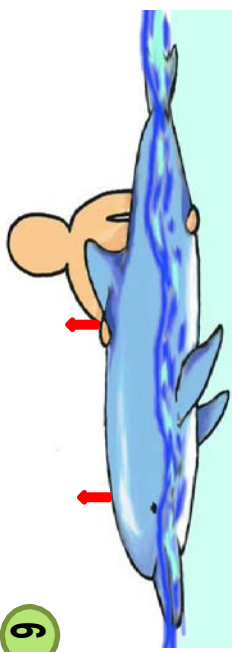
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មិនត្រូវផ្លាស់ទីសត្វផ្សោតសមុទ្រដោយកាន់ព្រួយចម្រើង ឬកន្ទុយរបស់វានោះទេ ។



8

ប្រសិនបើពិនិត្យឃើញថា សត្វផ្សោតសមុទ្រមានអាការៈធ្មេញ យើងត្រូវ លែងចូលទៅក្នុងទឹកវិញ ដោយប្រើប្រុងការ ឬអង្រឹងសែង ។ ប្រសិនបើ អង្រឹងនោះគ្មានរន្ធសម្រាប់ដាក់ព្រួយចម្រើងចេញមកក្រៅទេ យើងត្រូវ រក្សាព្រួយចម្រើងរបស់វា ដោយបង្កប់ទៅផ្នែកខាងក្រោម ។



9

ត្រូវប្រលែងសត្វផ្សោតសមុទ្រទៅក្នុងទឹកប្រាំល្ងម ដើម្បីឱ្យវាអាចហែល បាន ហើយទឹកនោះក៏រាក់សម្រាប់យើងអាចដើរវិលវាបាន ។ យើងគួរឈរ នៅតែឆ្ងាយនៃអង្រឹងនោះ និង ត្រូវជួយវា ដោយរក្សាព្រួយខ្លួននិងរន្ធដក ដង្ហើមរបស់វាឱ្យនៅលើផ្ទៃទឹក ។



ប្រសិនបើអ្នកបានជួបនិងឃើញសត្វផ្សោតសមុទ្រកំពុងជាប់តាំង សូមផ្តល់ដំណឹងទៅខណ្ឌរដ្ឋបាលជលផលកោះកុង ទូរស័ព្ទ៖ ០៩៧ ២០ ២១ ៨៥០
ចំណុះ គ្រូពាក់ស្រោមដៃមុនពេលចាប់កាន់សត្វផ្សោតសមុទ្រទាំងនោះនៅពេលជាប់តាំង និងជៀសវាងការប៉ះពាល់ឈាម ឬផ្សិតផ្សេងៗនៃខ្លួនប្រាណរបស់វា

សៀវភៅស្តីពីការជួយសង្គ្រោះបឋមដល់ ថនិកសត្វសមុទ្រ

សេចក្តីផ្តើម:

សត្វសមុទ្រដែលកម្ររករួមមាន ៖ ជ្រូកទឹក ផ្សោត បាឡែន និងអណ្តើកសមុទ្រ ទាំង ៥ ប្រភេទនៅ

ក្នុងប្រទេស ថៃ បច្ចុប្បន្នត្រូវបានចាត់ទុកជាសត្វសមុទ្រដែលកម្រនឹងរកបាន ហើយជិតនឹងផុតពូជ ទាំងស្រុង ទាំងនេះអង្គការដែលធ្វើការងារពាក់ព័ន្ធជាមួយនឹងសត្វសមុទ្រ(ថនិកសត្វសមុទ្រ)ដែល កម្ររកបានក្នុងប្រទេសថៃមានតិចតួច ជាពិសេសការ ងារដែលពាក់ព័ន្ធនិងការជួយសង្គ្រោះជីវិត ថនិកសត្វសមុទ្រដោយកម្ររកនេះ បច្ចុប្បន្នយើងនៅមានការខ្វះខាតបុគ្គលិក ដែលមានចំណេះដឹង ពាក់ព័ន្ធនិងការជួយសង្គ្រោះជីវិតថនិកសត្វសមុទ្រដែលឡើងមកជាប់លើគោក ដូច្នេះហើយទើប ចាំបាច់ត្រូវផ្តល់នូវចំណេះដឹងក្នុងការរៀបចំបណ្តុះបណ្តាលស្តីពីវិធីជួយសង្គ្រោះថនិកសត្វសមុទ្រ កម្ររកឲ្យបានសមរម្យ និងត្រឹមត្រូវតាមបច្ចេកទេសនៃវិធីជួយសង្គ្រោះដែលអាចយកទៅអនុវត្ត ការងារបានយ៉ាងរលូន ។

កត្តាដែលនាំឲ្យជួបរកឃើញសត្វឡើងជាប់លើគោកមានកត្តាគោល ២ យ៉ាង គឺ ៖

១.កត្តាមនុស្សបណ្តាលមកការប្រម៉ាញ់សត្វធ្វើជាចំណីអាហារ ការជាប់ឧបករណ៍នេសាទ តាមរយៈការធ្វើនេសាទជា ពិសេសសត្វអណ្តើកសមុទ្រ ឧប្បត្តិហេតុទូកបុក ការបំពុលបរិស្ថាន ដូចជា៖ ការចោលសម្រាម ចោលសារធាតុគីមី រលកទឹក សម្លេង ការរំខានក្នុងទឹកនៃឯក ប្រភពចំណីអាហារ-ប្រភពទីជម្រករស់នៅ ។

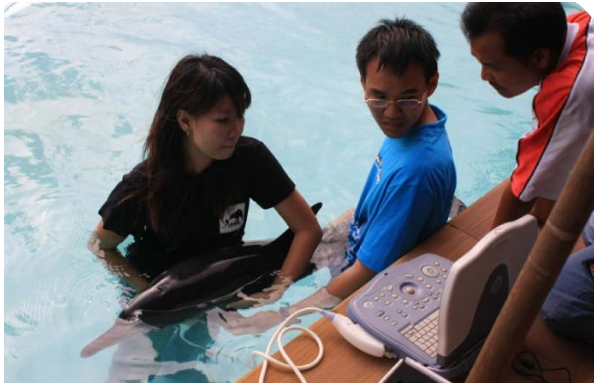


រូបភាពបាឡែនប្រើជាជាប់កំទេចមងបណ្តាល



រូបភាពអណ្តើកសមុទ្រជួបឧប្បត្តិហេតុទូកបុកបែក

២.កត្តាធម្មជាតិ បណ្តាលមកពីការកើតរោគមានជម្ងឺ ការរង្វេងបែកចេញពីហ្វូង ការគេចចេញពីសត្វ ដែលតាមប្រមាញ់ចំណី ដូចជា ឆ្ការដេញខាំ គ្រោះធម្មជាតិធ្វើឲ្យបាត់បង់ប្រភពរកចំណី អាហារ ការធ្វើដំណើរ ដោយសារការតាមរកចំណីអាហារ ។



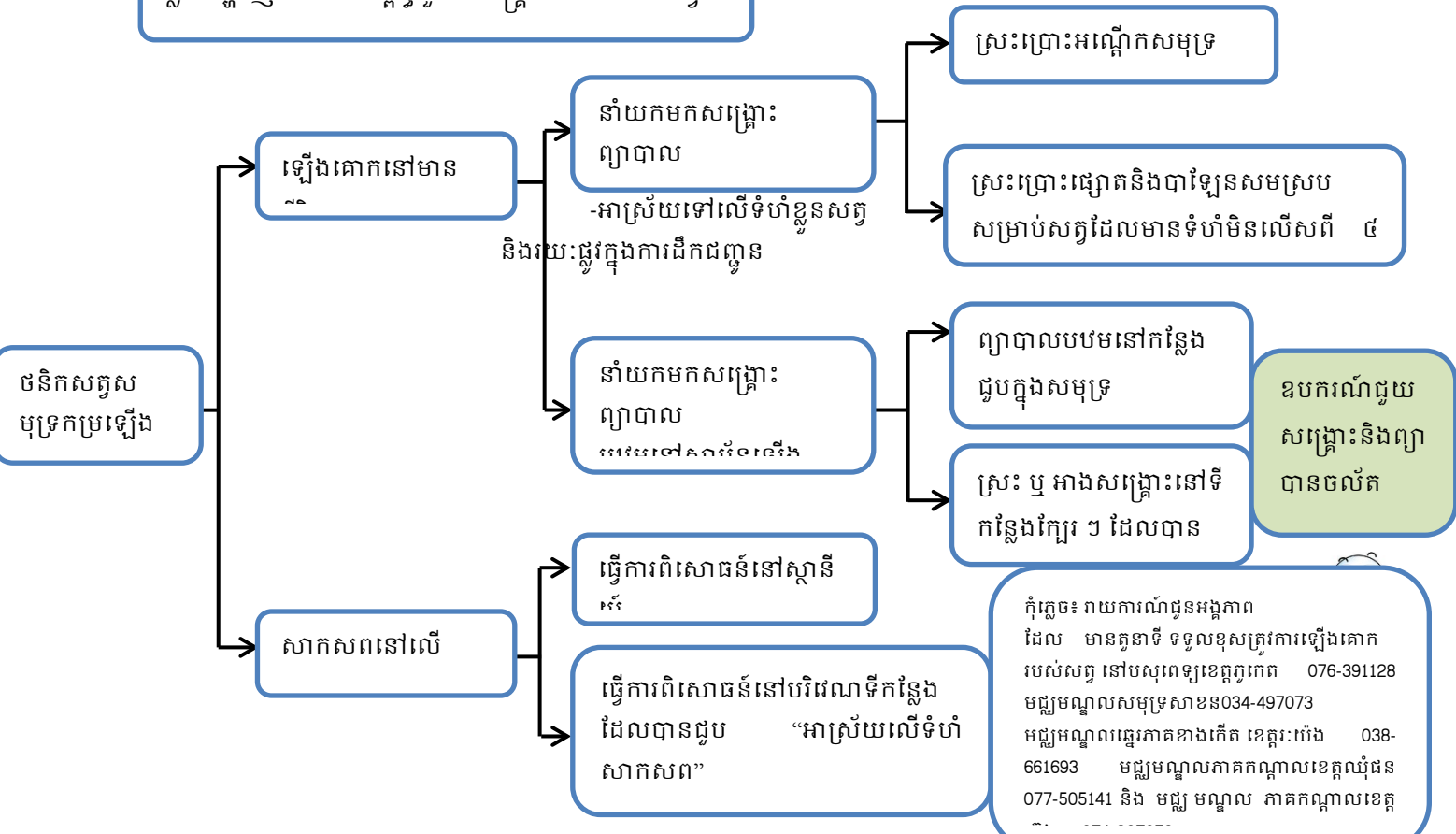
រូបភាពសាសនាជ្រោតឡើងមកលើគោកដោយអាការៈមាន



រូបភាពបាឡែនក្របី ៣០ ក្បាលឡើងគោកដោយសារ រង្វេងខុសផ្លូវ/ ដេញតាមរកចំណីអាហារ

វិធីក្នុងការរៀបចំចាត់ចែង នៅពេលទទួលបានការរាយការណ៍ត្រូវមានការកត់ត្រាទុកព័ត៌មាន ឲ្យបាន ល្អិតល្អន់ ធ្វើការទំនាក់ទំនងជាមួយអ្នកចុះអនុវត្តការងារក្នុងមូលដ្ឋាន ដើម្បីវាយតម្លៃស្ថានភាពរបស់សត្វ និង រកវិធីចាត់ចែងសង្គ្រោះបឋមតាមគំរូប្លង់ខាងក្រោម ៖

ប្លង់បង្ហាញពីរចនាសម្ព័ន្ធជួយសង្គ្រោះជីវិតថនិកសត្វ





ដំណាក់កាលទី២.

- ☞ ត្រូវធ្វើការដឹករណ៍ជុំវិញខ្លួនផ្សោត និងបរិវេណព្រុយទ្រូងឲ្យជ្រៅ ជាផ្នែកនិងមានទឹកដក់ ដើម្បីការពារមិនឲ្យទម្ងន់ខ្លួនសង្កត់ផ្នែកពោះខ្លាំងពេក
- ☞ យកក្រណាត់សើមស្តើងគ្របរុំលើផ្សោត ស្រោចទឹកជាអន្លើ ៗ ដើម្បីបំភាយកម្ដៅចេញពីខ្លួន និង រក្សាសំណើមក្នុងខ្លួន



ប្រការគួរប្រយ័ត្ន: កុំឲ្យកន្សែងបិទរន្ធដង្ហើម និងហាមទឹកចូលទៅក្នុងដងដៃដាច់ខាត



ដំណាក់កាលទី៣. ការត្រៀមឧបករណ៍ធ្វើបម្លាស់ទីរួចរាល់ហើយ និងទំហំខ្លួនសត្វក៏អាចផ្លាស់ទីបានស្រួល (បណ្តោយ២-៣ ម៉ែត្រ)

- ☞ ត្រូវត្រៀមរៀបចំប្រុងការ និង ស្នែងសែង
- ☞ រៀបចំកែបអេប៉ុងសម្រាប់ទ្រដងខ្លួន មិនឲ្យផ្ទាល់និងជីវីង
- ☞ រៀបចំធុងជ័រដើម្បីដងទឹកស្រោចក្នុងរយៈពេលកំពុងដឹកជញ្ជូន