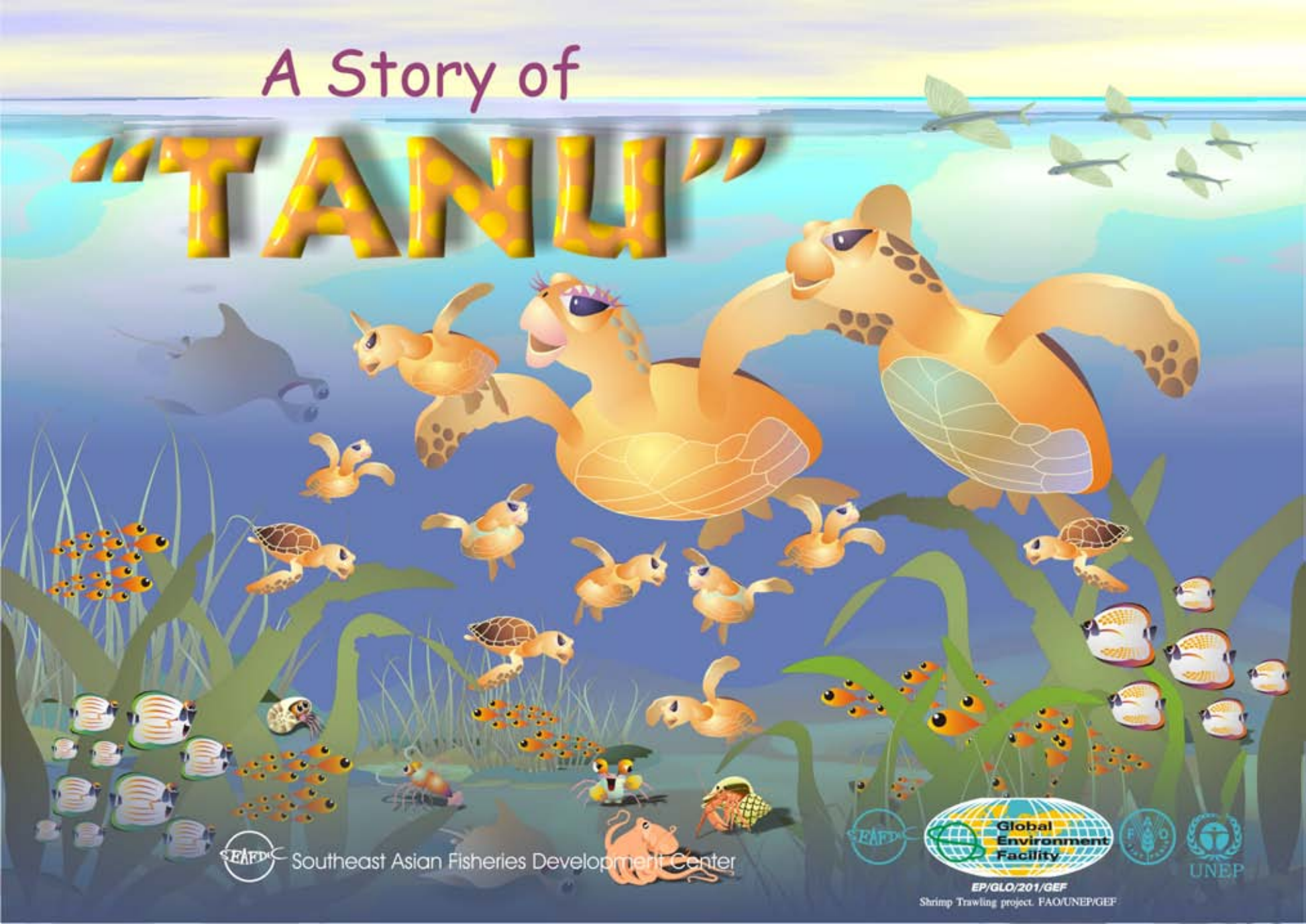


# A Story of

# "TANU"



Southeast Asian Fisheries Development Center



EP/GLO/201/GEF

Shrimp Trawling project. FAO/UNEP/GEF

## What is SEAFDEC?

SEAFDEC is an autonomous intergovernmental body established as a regional treaty organization in 1967 to promote fisheries development in Southeast Asia.

### Objectives

SEAFDEC aims specifically to develop fishery potentials in the region through training, research and information services in order to improve food supply through rational utilization of fishery resources in the region.

### Functions

To achieve its objectives, the center has the following functions:

- 1) To offer training courses, and to organize workshops and seminars, in fishing technology, marine engineering, extension methodology, post-harvest technology, and aquaculture;
- 2) To conduct research and development in fishing gear technology, fishing ground surveys, post-harvest technology, and aquaculture, to examine problems related to the handling of fish at sea and quality control, and to undertake studies on the fisheries resources in the region; and
- 3) To arrange for transfer of technology to the countries in the region and to make available the printed and non-printed media, which include the publication of statistical bulletins for the exchanges and dissemination related to fisheries and aquaculture development.

### Membership

SEAFDEC membership is open to all Southeast Asian Countries. The member countries of SEAFDEC at present are Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

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Because we want you to care and love them more  
The Southeast Asian Fisheries Development Center  
Like to present.....

## “A story of Tanu”

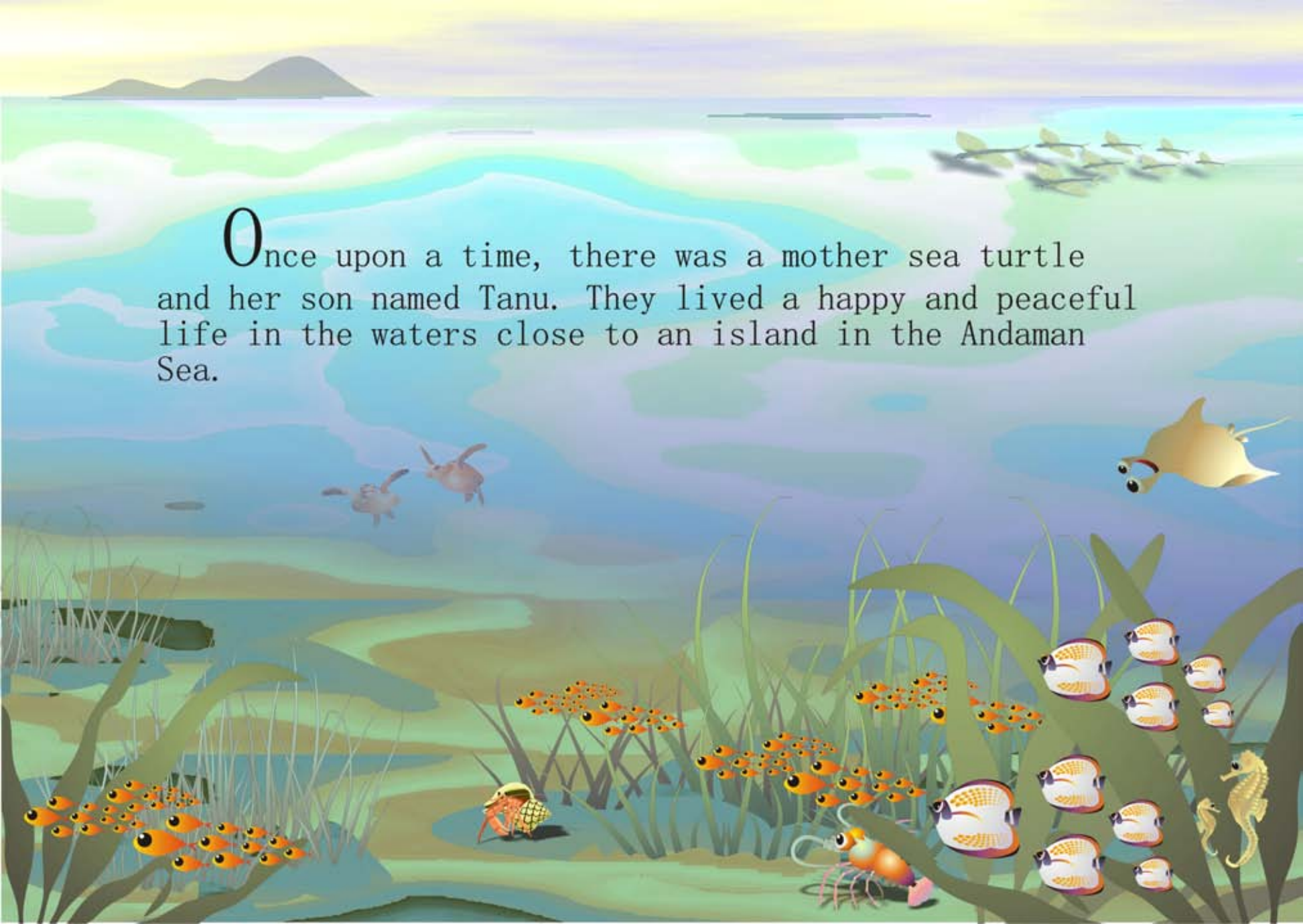
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Once upon a time, there was a mother sea turtle and her son named Tanu. They lived a happy and peaceful life in the waters close to an island in the Andaman Sea.

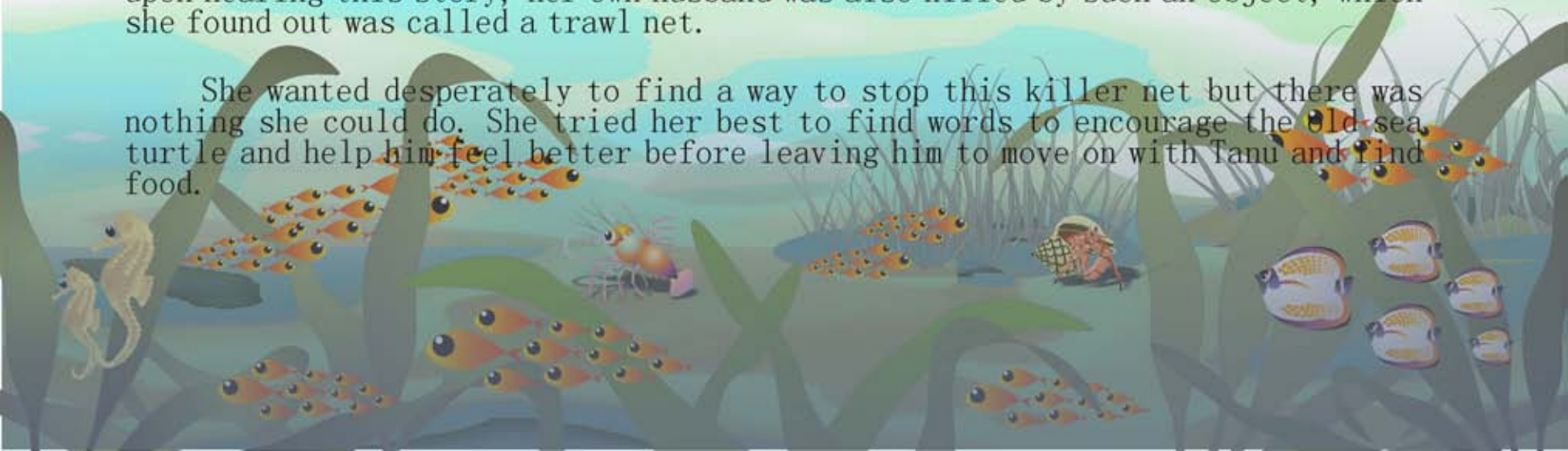


One day while Tanu was happily playing around his mother; they spotted an old sea turtle with a sad look upon his face. Tanu's mother asked the old Sea Turtle "why do you look so lonely and sad today?",

The old turtle replied "I am feeling so sad because this morning while my son and his wife were swimming they were taken away by a big, black, long object that moved very fast in the water. I followed them and tried my hardest to save them but I could not because they were trapped inside the object. I could hear sounds coming from the boat close to the object that sounded like Fishermen talking, they said during this trawling trip we have caught two sea turtles and they both seem to be dead. This is not good because the weight of these turtles in the net can cause damage to our fish and shrimp catch."

The old sea turtle continued to speak with tears in his eyes the fishermen did not release my son and his wife's body back to the sea but placed them on their boat deck and brought them to their village. Tanu's mother felt very sad upon hearing this story, her own husband was also killed by such an object, which she found out was called a trawl net.

She wanted desperately to find a way to stop this killer net but there was nothing she could do. She tried her best to find words to encourage the old sea turtle and help him feel better before leaving him to move on with Tanu and find food.





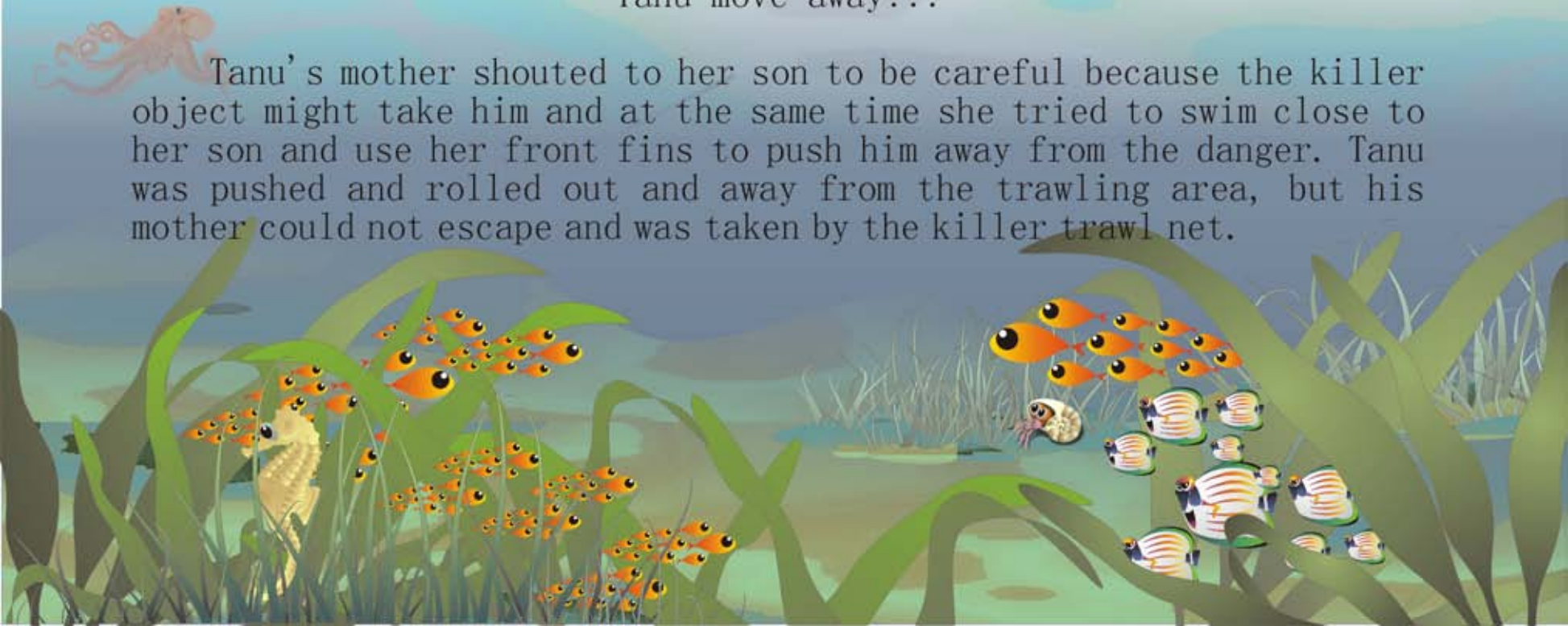


The sun was beginning to set, indicating that evening soon approached. During this time Tanu and his mother were searching for food in the sea grass bed and enjoying eating the food they caught when suddenly both of them were startled by the sound of chains that were being released from a fishing boat over top of the sea grass bed.

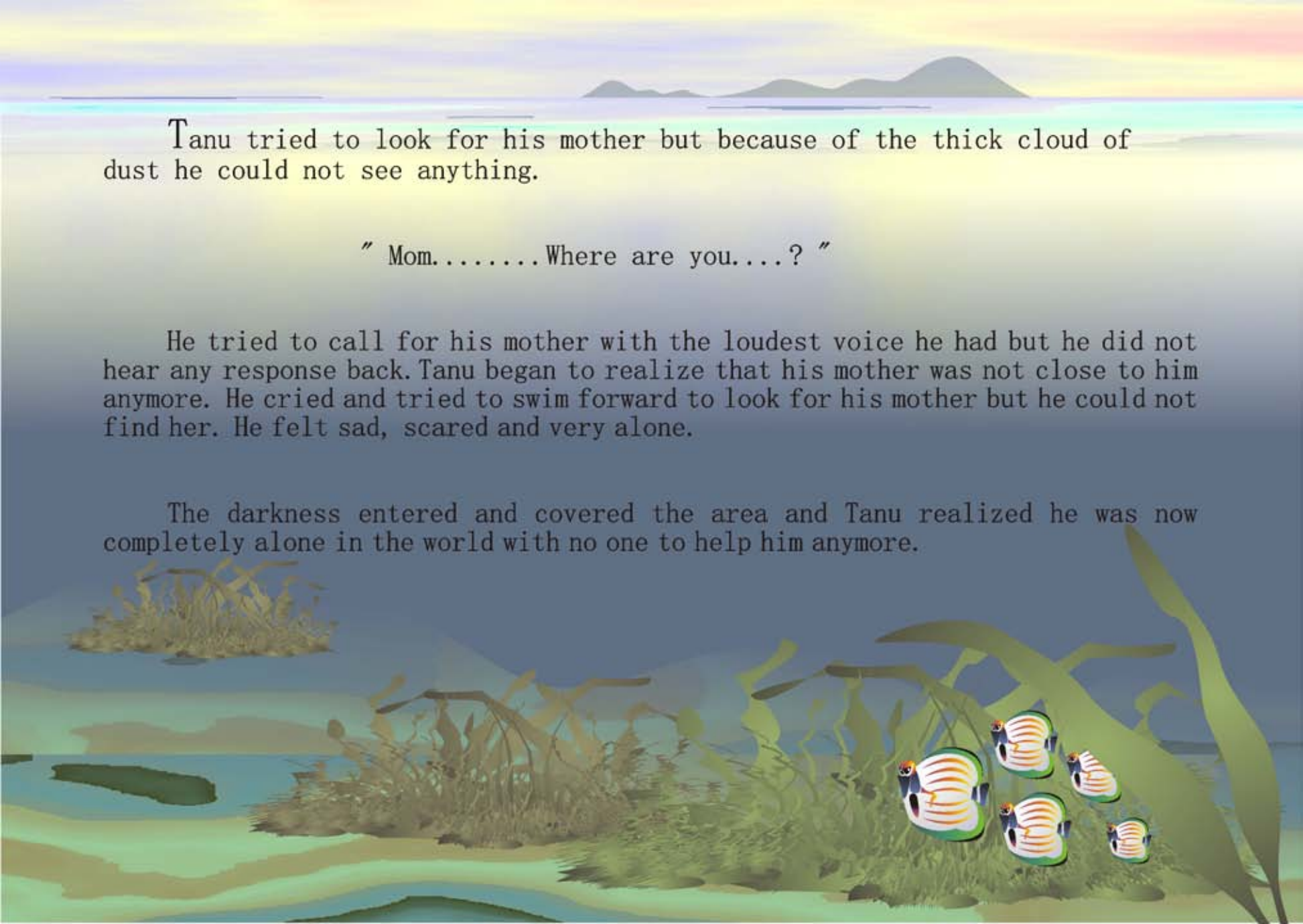
These large chains disturbed the sediment and caused a big cloud of sand to form around the area where Tanu and his mother were eating, Tanu could also see that there was a wide area of the sea floor that was damaged from the chains.

"Tanu move away!!!"

Tanu's mother shouted to her son to be careful because the killer object might take him and at the same time she tried to swim close to her son and use her front fins to push him away from the danger. Tanu was pushed and rolled out and away from the trawling area, but his mother could not escape and was taken by the killer trawl net.





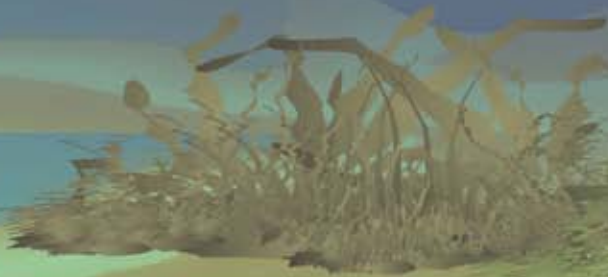
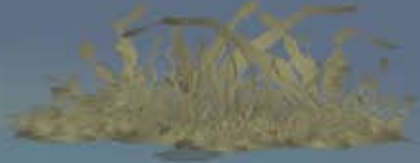


Tanu tried to look for his mother but because of the thick cloud of dust he could not see anything.

" Mom.....Where are you....? "

He tried to call for his mother with the loudest voice he had but he did not hear any response back. Tanu began to realize that his mother was not close to him anymore. He cried and tried to swim forward to look for his mother but he could not find her. He felt sad, scared and very alone.

The darkness entered and covered the area and Tanu realized he was now completely alone in the world with no one to help him anymore.





When Tanu's mother was taken by the trawl net she had very little chance of survival because trawl nets are dragged on the bottom and middle layers of the water column and do not come to the surface. So those animals that must go to the surface to breathe air, like turtles, dugongs, dolphins etc... are not able to and will eventually die.

Tanu's mother felt as though she was losing energy, she began to cry because she could not bear to think about the son that she had left behind. She realized that now she had no chance to take care and protect her son from the dangerous world under the sea. As she continued to be dragged very slowly in the trawl net she could feel herself losing more strength and hope.

Finally her eyes closed and she was gone from the world.





Ten years have passed and Tanu has grown up to be a mature sea turtle with a big, happy, family. He has ten children that he cares for and watches over.







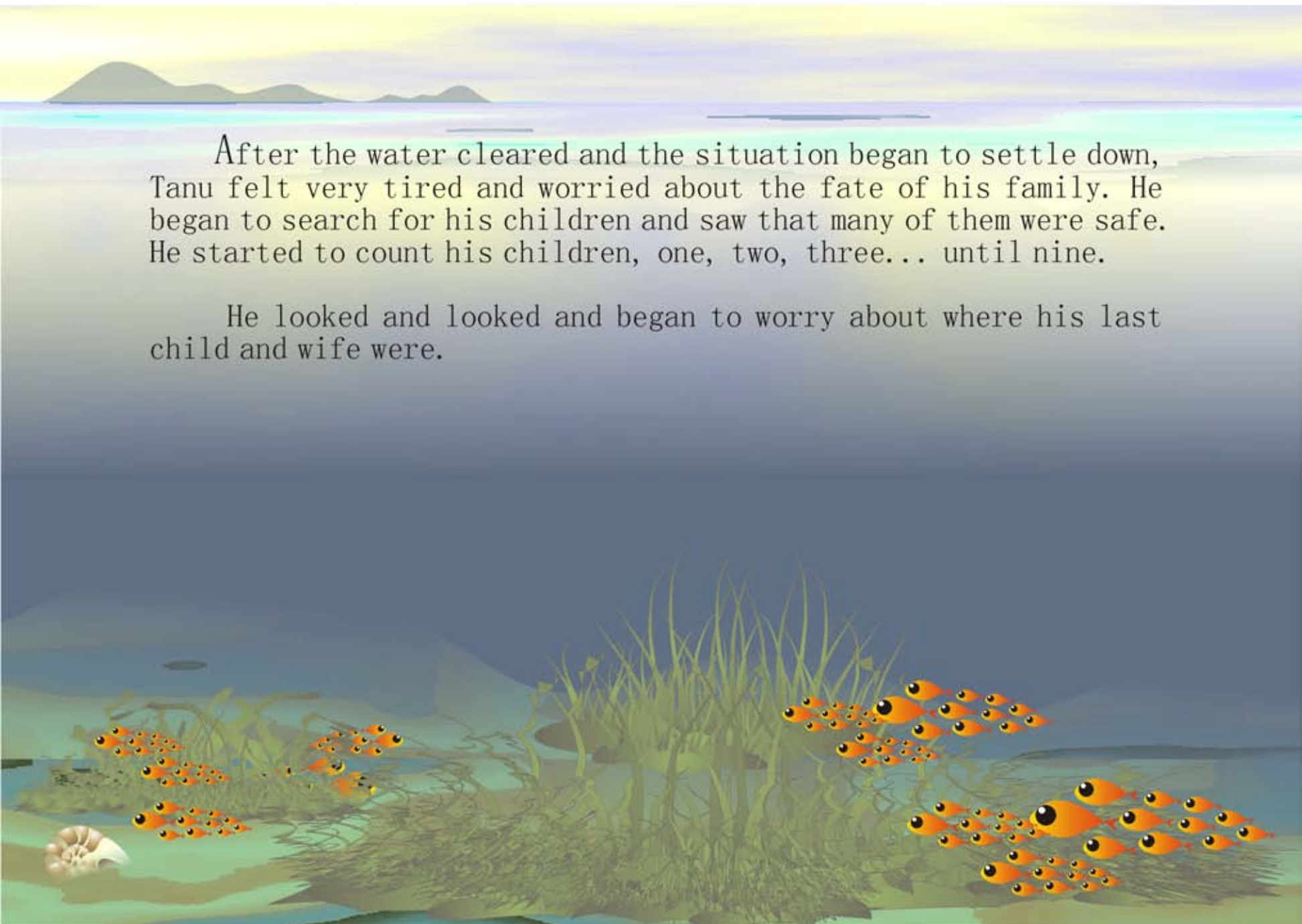
One day while his family was swimming and searching for food, he heard the terrible sound of chains dropping to the sea floor. As soon as Tanu heard this sound he knew what it was and that his family was in danger.

“ Watch out and swim away!!! ”

He shouted to his wife and all his children. He and his wife tried to push their children away from the danger area one by one. Tanu used all his strength to try and save his children's life, but everything was happening so fast and he could not see all of this family.

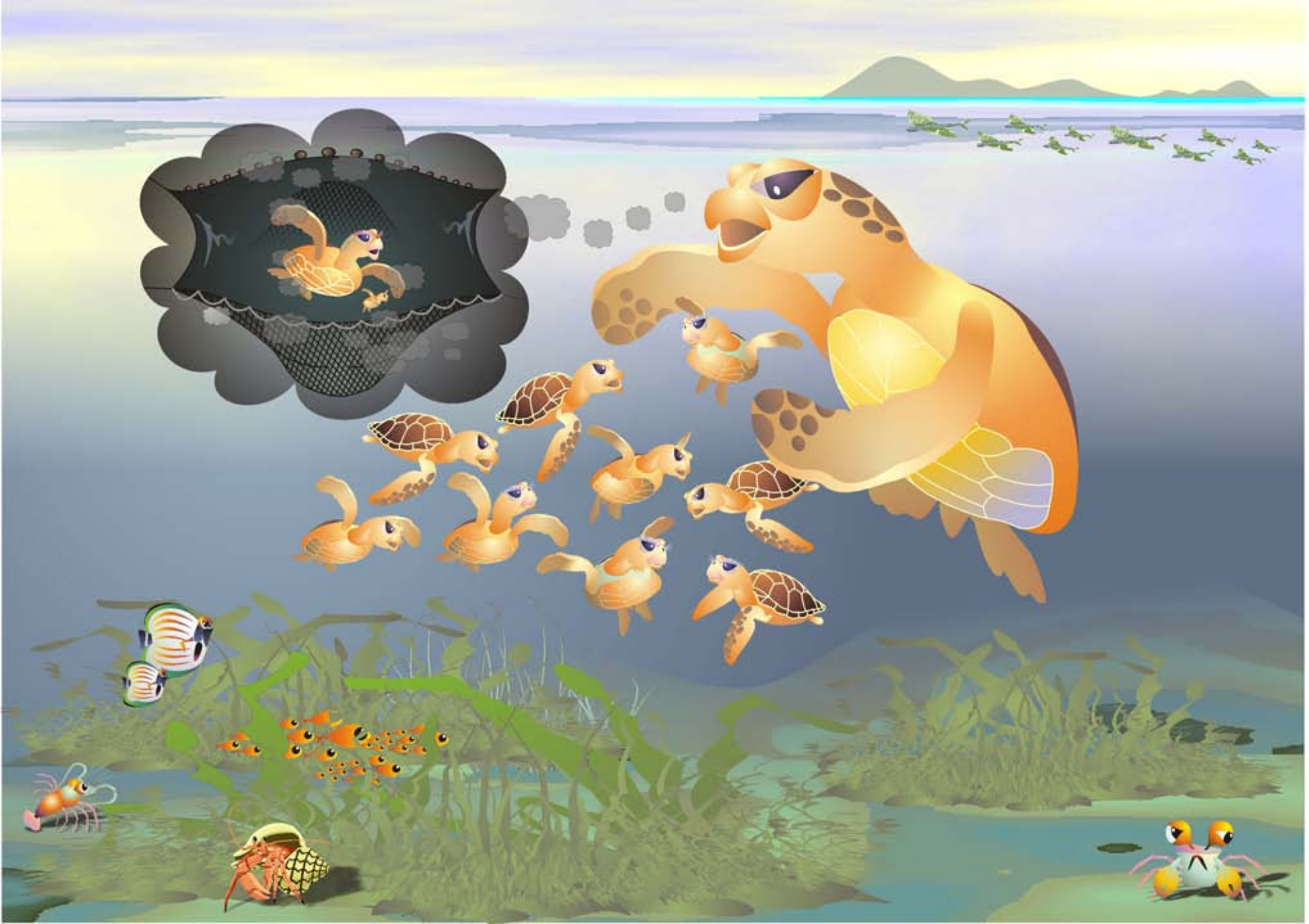






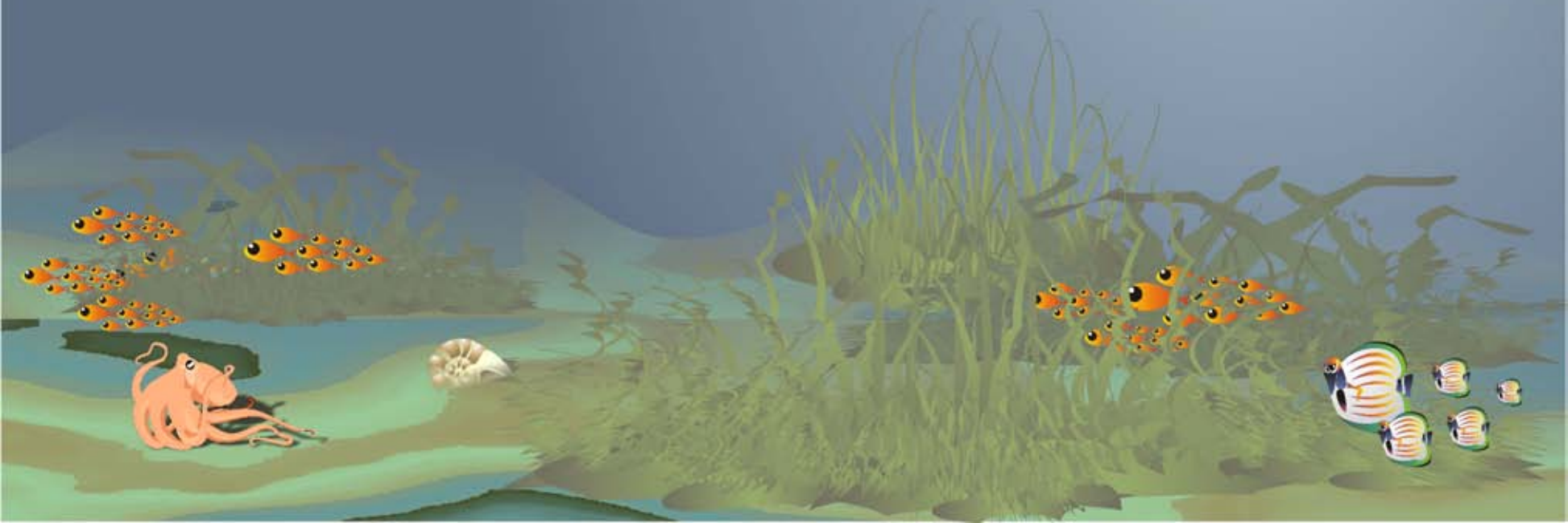
After the water cleared and the situation began to settle down, Tanu felt very tired and worried about the fate of his family. He began to search for his children and saw that many of them were safe. He started to count his children, one, two, three... until nine.

He looked and looked and began to worry about where his last child and wife were.



Tanu was shocked when he realized they were missing and that they must have been taken by the trawl net just like his mother had so long ago. He turned around and said to his remaining children

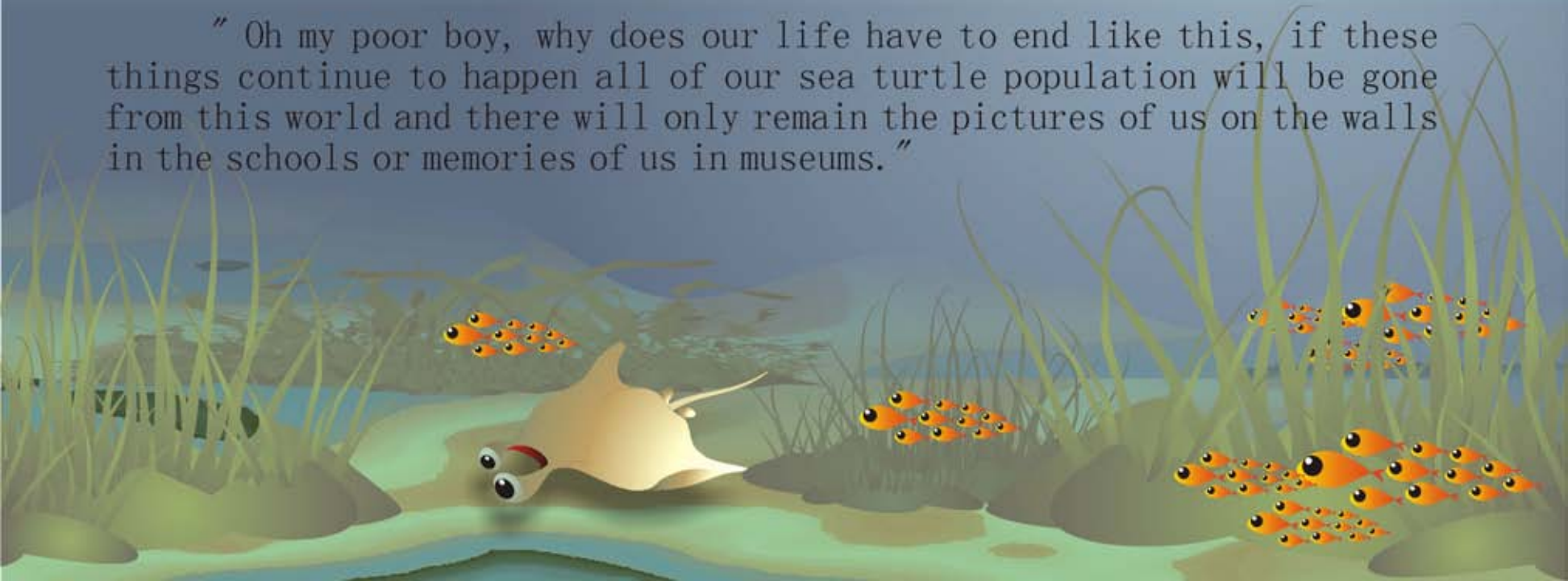
"You must hide in a safe place under a large rock while I go and search for your mother and brother."






When Tanu's wife and son were taken by the trawl net the water current was too strong for them to swim against so they were pushed further back into the net and became trapped. They held their fins tightly together while the water continued to push them further and further back into the net. Tanu's wife suddenly saw the image of the many other sea turtles that had met the same fate and were killed in trawl nets. She said sadly to her son

" Oh my poor boy, why does our life have to end like this, if these things continue to happen all of our sea turtle population will be gone from this world and there will only remain the pictures of us on the walls in the schools or memories of us in museums."



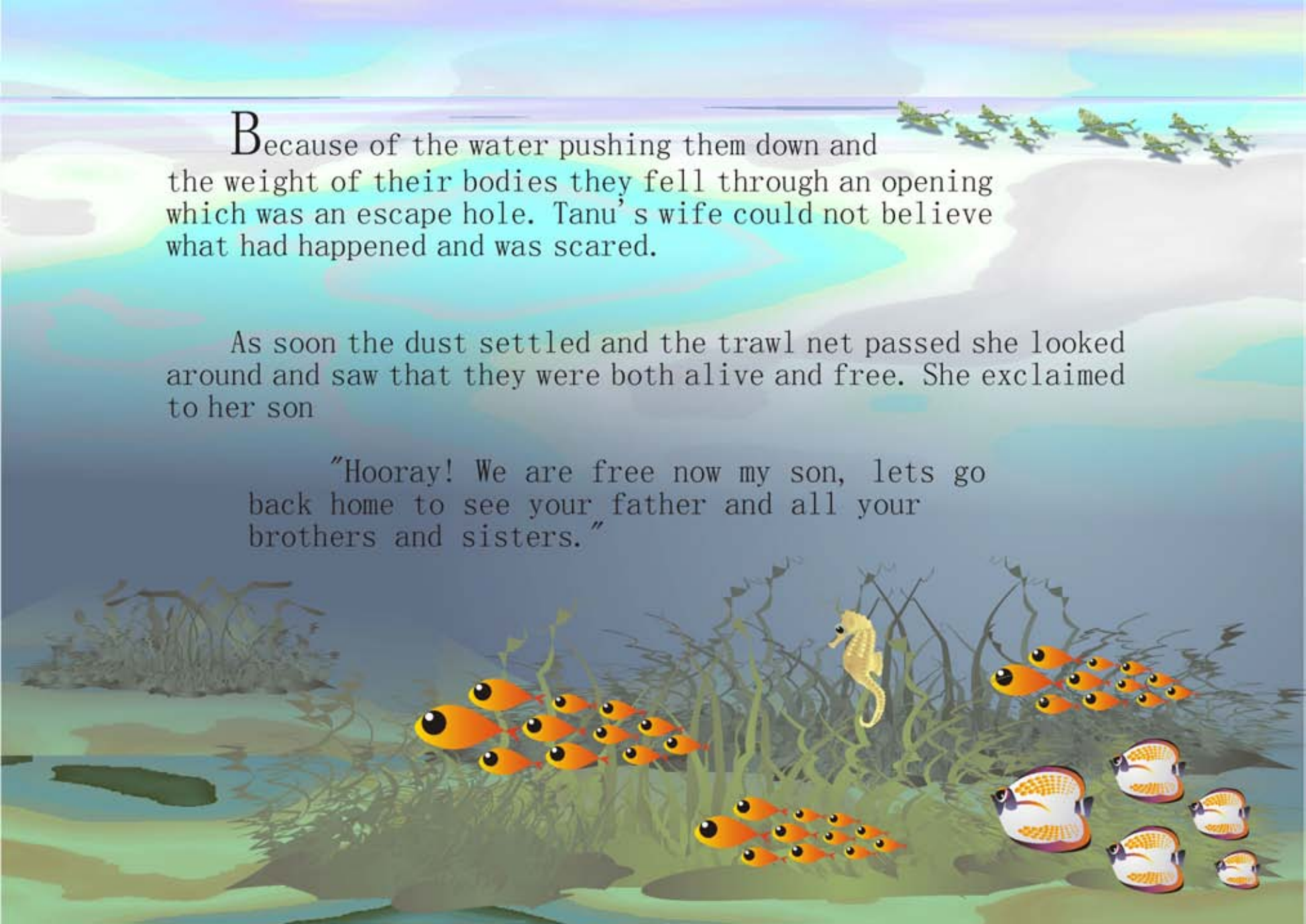






Suddenly, their bodies hit hard against iron grid bars and they tried to use all the energy and strength they had to swim against the water current and get away but it was too hard.



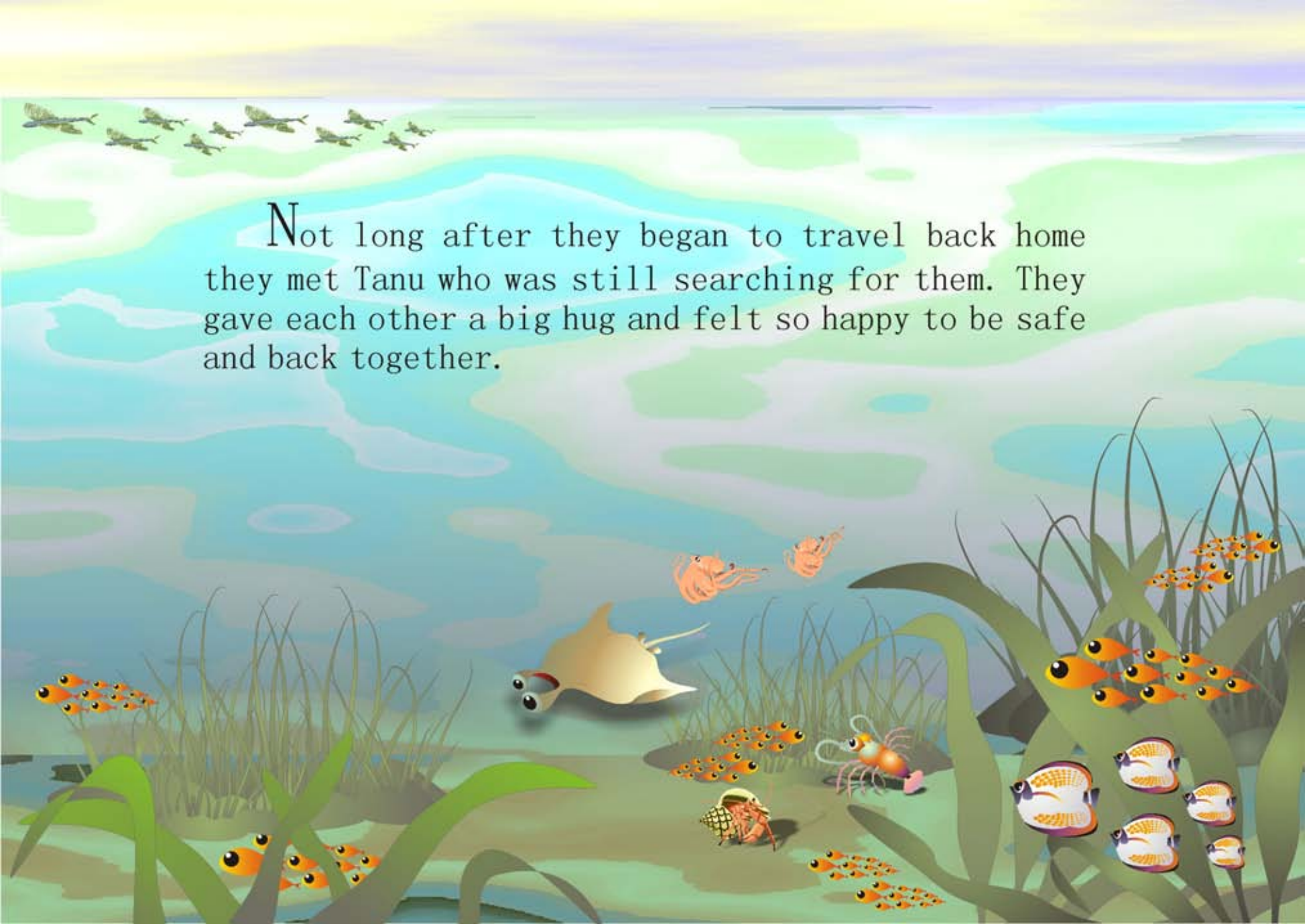


Because of the water pushing them down and the weight of their bodies they fell through an opening which was an escape hole. Tanu's wife could not believe what had happened and was scared.

As soon the dust settled and the trawl net passed she looked around and saw that they were both alive and free. She exclaimed to her son

"Hooray! We are free now my son, lets go back home to see your father and all your brothers and sisters."





Not long after they began to travel back home they met Tanu who was still searching for them. They gave each other a big hug and felt so happy to be safe and back together.



Tanu's wife described her experience to her husband and explained that the fishermen's boat had a trawl net that was designed only to catch fish and shrimp and to release large marine animals.

She said she was so thankful to the fisherman for using this device because it saved their lives. Tanu smiled and took his wife and son's fin and started to swim back home.







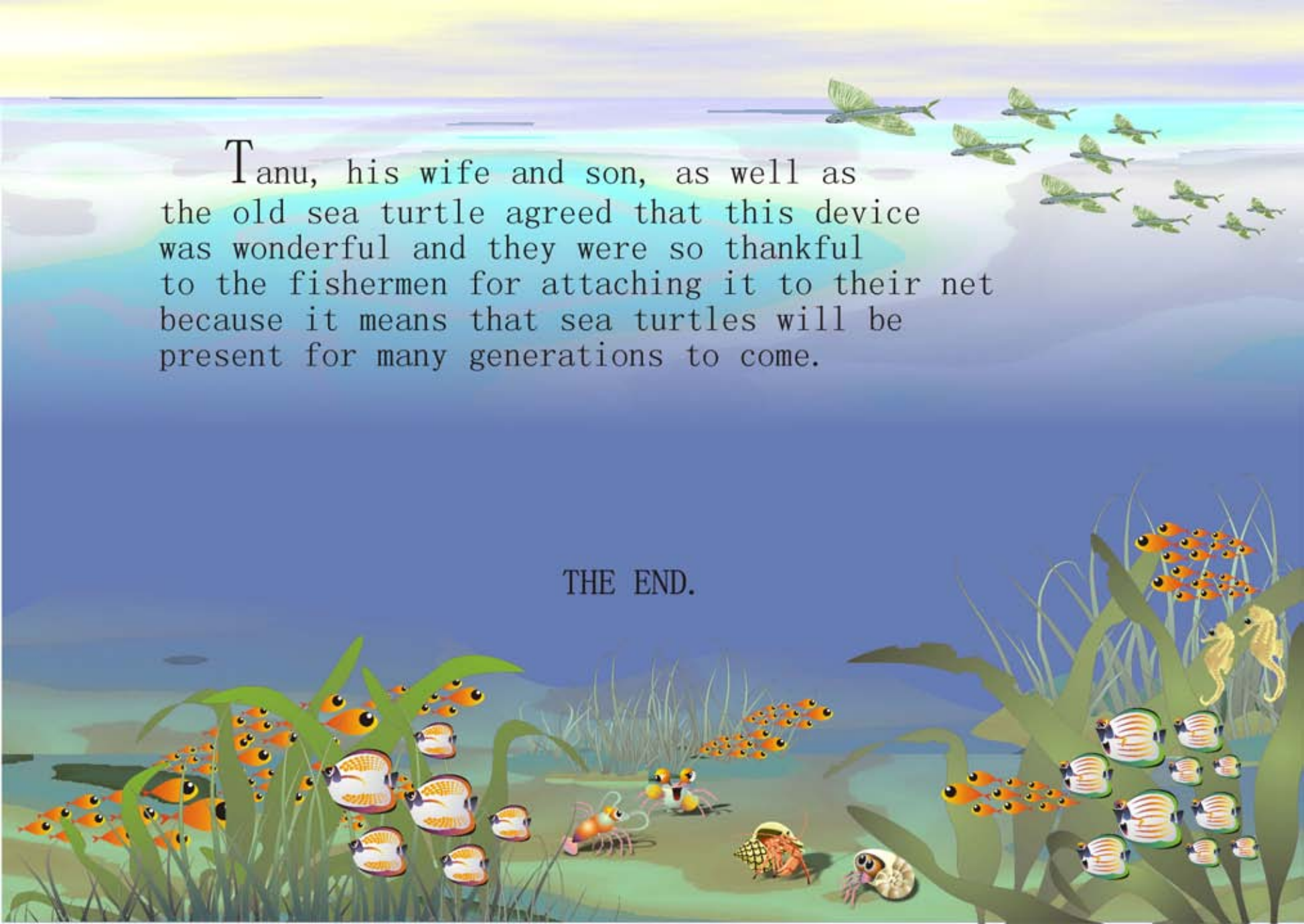
Just as they were swimming away, the old sea turtle swam up and said "Congratulations Tanu, your family has survived and is safe."

He then explained that the iron grid bars and the opening escape hole which they went through is called a Turtle Excluder Device or TED which is attached to the trawl net in order to allow all sea turtles to escape from the net.

He continued "So from now on, our lives will be safer, we no longer have to fear the nets and we can be sure that future generations will continue to survive and live happy lives."







Tanu, his wife and son, as well as the old sea turtle agreed that this device was wonderful and they were so thankful to the fishermen for attaching it to their net because it means that sea turtles will be present for many generations to come.

THE END.



Remark:

This is a fictional story only, in the natural environment sea turtles live a mainly solitary life and do not provide maternal care for their young.



## Marine Turtles VS Thai Turtle Free Device

Marine Turtles have co-existed with the earth for over 150 million years. There are 6 of 7 of living marine turtles namely Leatherback, Green Turtle, Olive ridley, Hawksbill, Loggerhead and Flatback are commonly found in ASEAN Waters. All are highly migratory often passing through territorial and international waters from feeding to nesting grounds and back again. Currently marine turtle conservation is an interesting issue in the world of natural conservation. The problem in Marine turtle conservation is faced by many countries, these can be seen from the continual decline in the turtle population even after various conservation efforts and approaches have been attempted.

There are many methods of conserving the turtle through Research, Hatchery Turtle awareness campaigns, etc. In the fisheries sector, fishermen can take part of turtle conservation is to avoid harming marine turtle during their fishing operation.

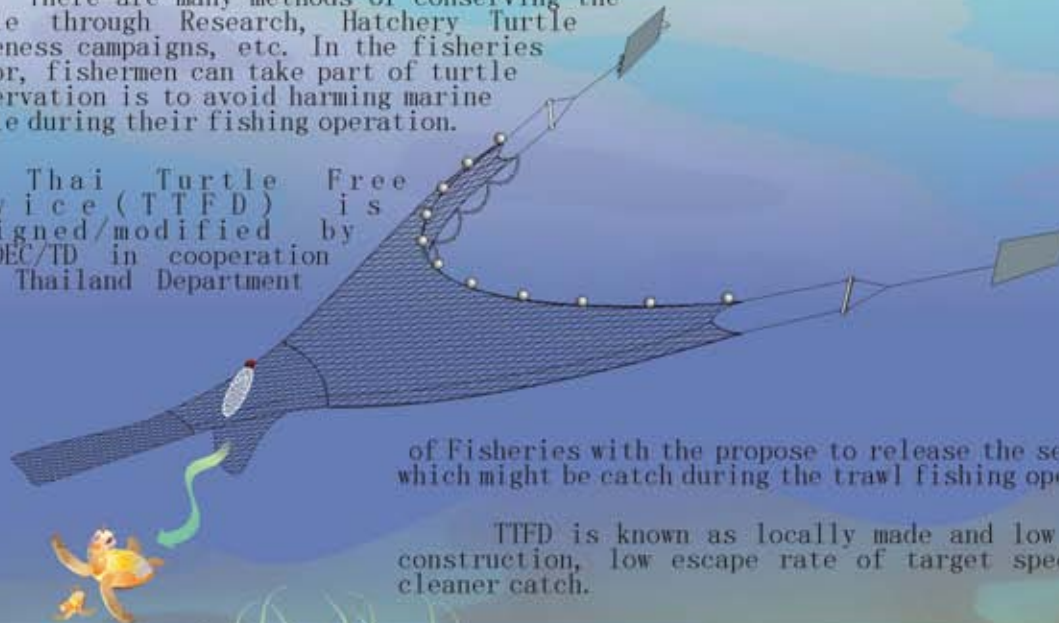
The Thai Turtle Free Device (TTFD) is designed/modified by SEAFDEC/TD in cooperation with Thailand Department

of Fisheries with the propose to release the sea turtle which might be catch during the trawl fishing operation.

TTFD is known as locally made and low cost of construction, low escape rate of target species and cleaner catch.



**TTFD**  
THAI TURTLE FREE DEVICE



## SEA TURTLE in Southeast Asia

### Leatherback Sea Turtle *Dermochelys coriacea*

**Description:**

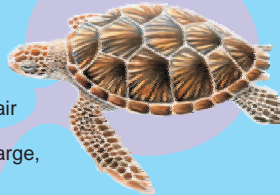
- The leatherback is the only sea turtle that lacks a hard shell.
- Carapace large elongated and flexible with 5 distinct ridge, no scutes.
  - All flippers are without claws.
  - Color dark gray or black with white or pale spots.
  - Size 120-180 cm.
  - Weight up to 250-700 kg.



### Green Sea Turtle *Chelonia mydas*

**Description:**

- Small and blunt head and have a single pair of prefrontal scales.
- Bony carapace without ridges, and has large, over-lapping scutes with 4 lateral scutes.
  - Color varies from pale to very dark green.
  - Body is nearly oval.
  - Flippers have 1 claw.
  - Size 90-125 cm.
  - Weight 136-180 kg.



### Hawksbill Sea Turtle *Eretmochelys imbricata*

**Description:**

- Narrow head and have 2 pairs of prefrontal scales with hawk-like beak.
- Bony carapace without ridges, elliptical shaped and has large, over-lapping scutes with 4 lateral scutes.
  - Color orange, brown or yellow with pale blotches on scutes.
  - Flippers have 2 claws.
  - Size 75-95 cm.
  - Weight 40-60 kg.



### Loggerhead Sea Turtle *Caretta caretta*

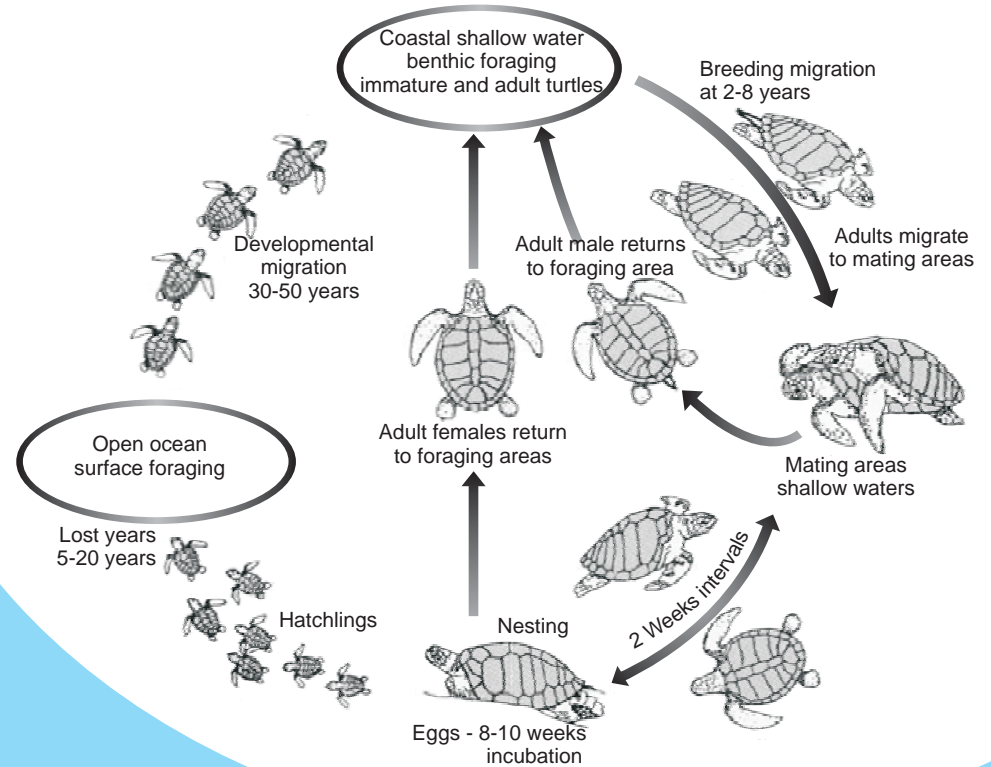
**Description:**

- Head is very large with heavy strong jaws.
- Bony carapace without ridges, heart shaped and has large, non-overlapping, rough scutes with 5 lateral scutes.
  - Flippers have 2 or 3 claws.
  - Color reddish-brown with yellowish-brown plastron
  - Size 73-107 cm.
  - Weight 150-200 kg.



## The Biology of Sea Turtles

Generalised life cycle of the Sea Turtle



### Olive Ridley Sea Turtle *Lepidochelys olivacea*

**Description:**

- Carapace olive green colored with small head.
- Bony carapace without ridges, and has 6 or more lateral scutes, nearly circular and smooth.
  - Flippers have 1 or 2 claws.
  - Juvenile color charcoal gray, adult color dark gray-green.
  - Size 62-70 cm.
  - Weight 35-45 kg.

