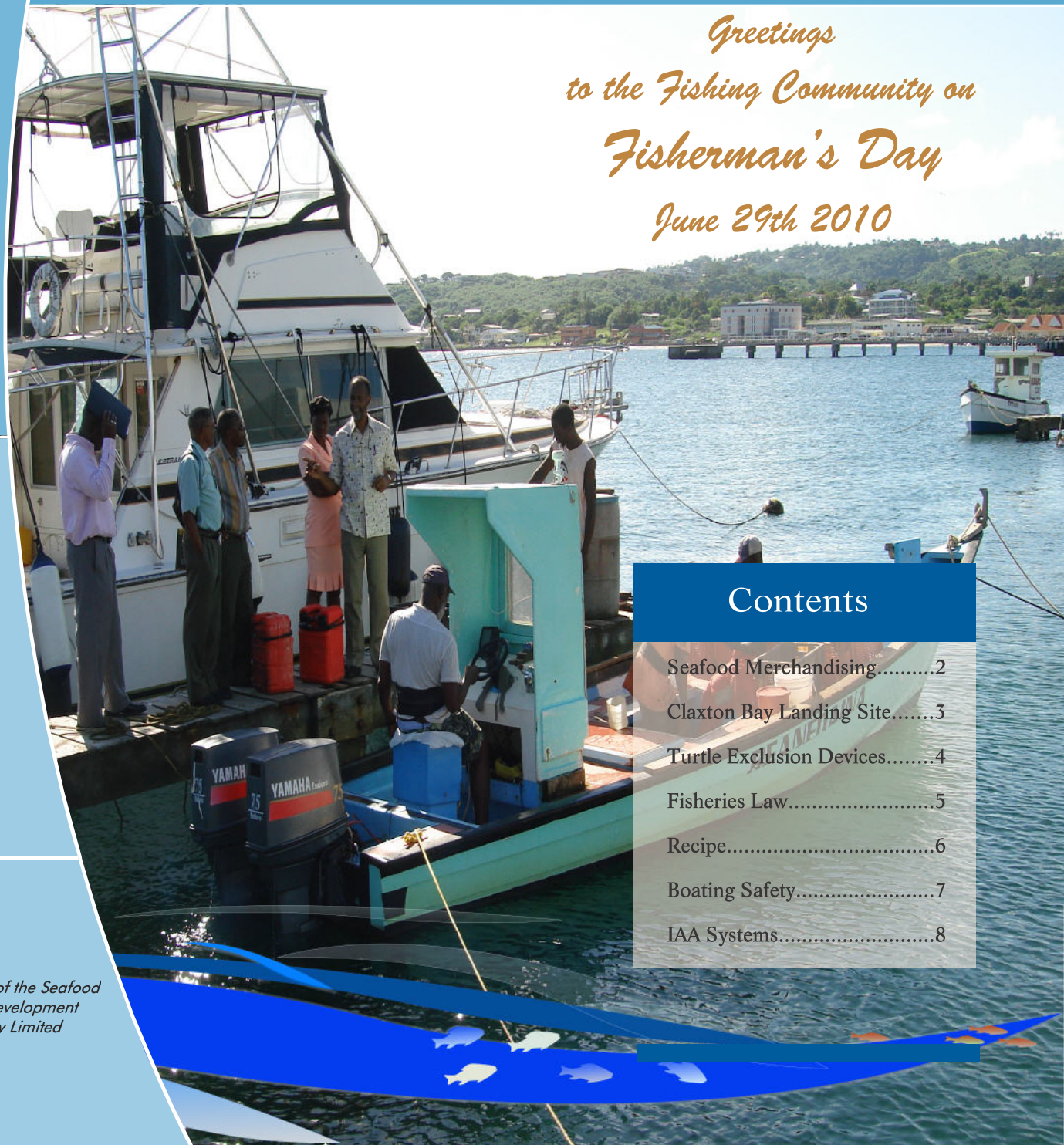
Fish IN

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April 2010

Newsletter of the Seafood Industry of Trinidad and Tobago



Greetings to the Fishing Community on

Fisherman's Day

June 29th 2010

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Seafood Merchandising

Seafood merchandising occurs in many ways in Trinidad and Tobago, from the level of the fish shops to the familiar fish van that drives through your street to the roadside vendor. The SIDC conducted interviews with merchandisers from opposite ends of the system in order to get a better understanding of their experiences.



Mr. Simon Ramsaroop and Mr. Ivan Maharaj jointly operate a roadside fish stall in Chaguanas. The location of the stall itself was chosen due to the access of good drainage and pipe-borne water and also the high flow of pedestrians and motorized traffic. Mr. Maharaj has been in the fishing industry from an early age but now that he is much older he has decided to shift gears and enter the retail sector. He encouraged his friend Mr. Ramsaroop to work along with him and they have since been vending fish at this location for the past two years. Both men agree that the retailing of seafood is a relaxing activity for them, much easier than fishing. "The experience is quite an enjoyable one" they say and they have also developed a great relationship with their customers.

Both Mr. Ramsaroop and Mr. Maharaj have attended workshops on 'Proper Icing Practices for Seafood' conducted by the SIDC, which provided them with the opportunity to make a difference in the way their seafood is retailed.

The benefits of using ice, proper sanitary practices, good personal and food hygiene create a competitive edge for them as they do not see the presence of other roadside vendors or even the vendors in the Chaguanas municipal market as serious competition. They boast that customers are attracted to their handling and preparation techniques and the fact that their seafood is stored in ice which ensures the high quality of their seafood as opposed to traditional roadside vending practices. "Our best sales occur on afternoons after work and on weekends when persons have more time" they say. Generally the average quantity of seafood purchased per customer ranges from 2 – 5 pounds.

Seafood retailed at this fish stall is purchased daily at the Orange Valley Wholesale Fish Market. This market receives fish from different landing sites within close proximity and so provides an abundance of fresh and good quality seafood. They are also now marketing red and silver tilapia produced by the IMA-SIDC tilapia production project in Chaguaramas.

At the other end of seafood merchandising lies the fish shop experience. Mr. Anthony Byer is the Managing Director of Seafood Enterprises Limited – a local seafood processing and marketing facility. He currently manages two seafood retail outlets: one is located at his processing plant in Caroni and the other in St. James, opposite Long Circular Mall.

Mr. Byer has been involved in the seafood retail business for approximately five years and opened his second retail store just over a year ago. Prior to his entrance into the seafood retail market his focus was primarily seafood processing for wholesale locally and for export, activities in which he is

still involved. He is a major buyer of fish from different landing sites around the island and he is well known to the fisherfolk.

The local seafood products sold at the retail outlets are processed at his processing plant and carry the Ocean Gem brand. The majority of these products are frozen while some are chilled. Other commodities retailed include: canned, bottled, comminuted and delicatessen fishery products.

He does not see the presence of other Seafood retail establishments such as fish shops or supermarkets as competitors for his business at all, since customers are attracted to quality and this is guaranteed at his outlets. The presentation and display of a wide variety of seafood including local and imported species, and the presence of his knowledgeable staff are also very important in attracting and retaining his clientele.

Imported seafood products are also retailed in his stores. These high value seafood products are sold mainly at his establishment in St. James. Sauces, seasonings, cookbooks and cooler bags are among the other seafood related items sold. Mr. Byer has assured that he is totally committed to seafood merchandising and does not plan to expand into the retail of other meats. His products are promoted through newspaper advertisements, monthly specials and in-store seafood samplings.

He further indicated that his merchandising practices changed with the knowledge and experience he received from his attendance and participation in several International Seafood Expositions. He recommends the introduction of a seafood regime, focused on increasing consumer awareness which would increase national consumer interest in seafood and simultaneously drive the various local operators to improve their products.



Claxton Bay Fish Landing Site



Location

Immediately opposite the Sum Sum Hill Road on the Southern Main Road one will find the Claxton Bay fish landing site on Trinidad's west coast. The bay is semi enclosed, surrounded by mangroves and fishing operations are artisanal with the fishing fleet consisting mainly of pirogues.

Infrastructure and facilities

The facilities include a retail market, a fish processing building, a net/boat repair shed, a slipway, and a locker area for the storage of gear and engines. To the north of the landing site is a temporary jetty made out of rubble. The shallow muddy nature of the water front makes landings at low tide virtually impossible. Vessels are usually pushed up the slipway onto the compound for repairs or during rough sea conditions.

Fishing takes place throughout the year at this landing site. However, F.N. Solomon (2002) noted that during the months of high abundance for Mullet (January–April), fishing is most intense, occurring regularly both during the day and at night.

Fishing Association

The current President of the Claxton Bay Fishing Association is Mr. Kishore Boodram, a well known and respected fisherman from the area.

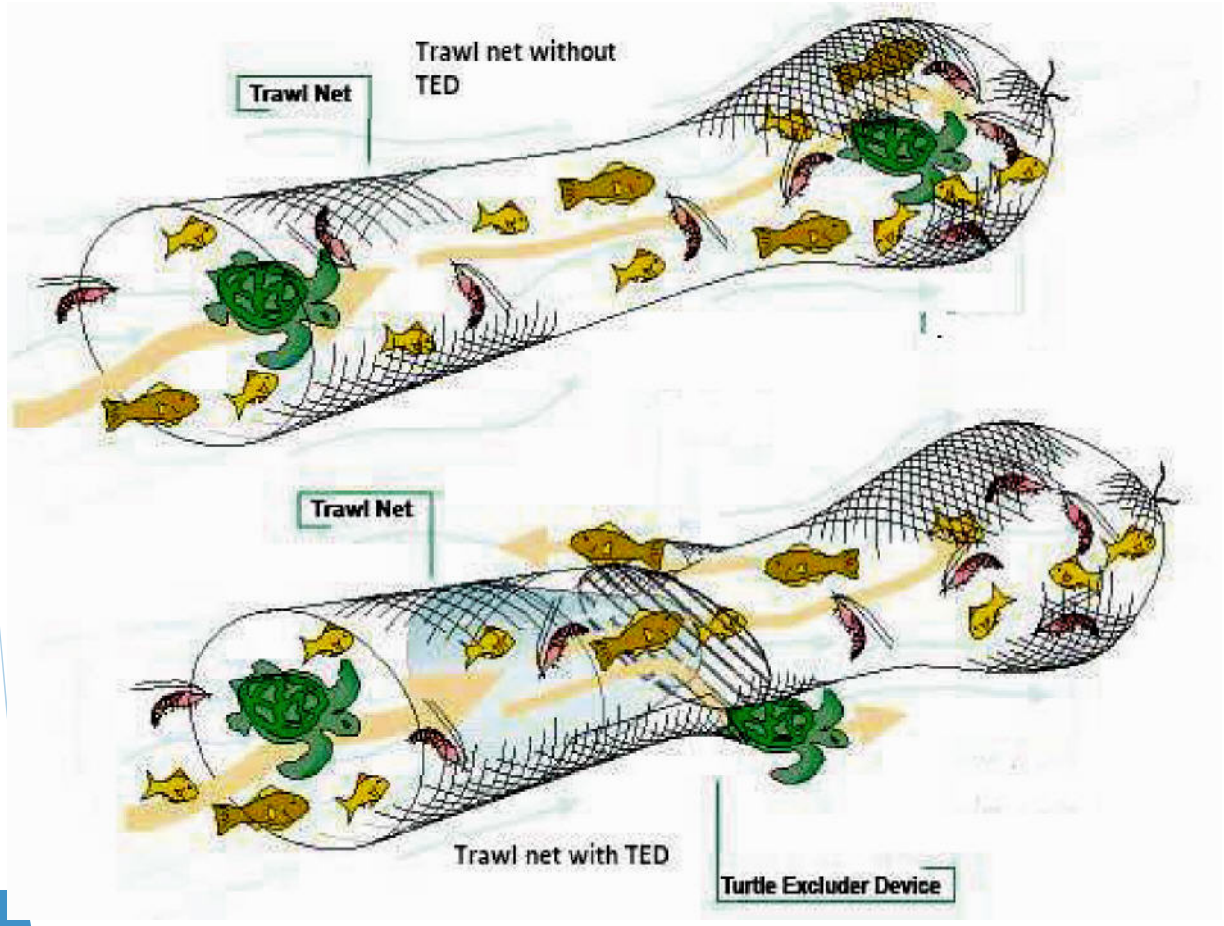
Number Vessels *(1998 Census)*	26
Main Fishing Methods	Banking and Gill Netting
Total Landings *(Fisheries Div. 2004;2007)*	351,148.86 kg (2004) 100,273.80 kg (2007)
Commercial Species	Mullet, King Fish, Salmon, Cro-cro, Carite, Catfish

Turtle Excluder Devices



Trawl nets are required by law to be fitted with Turtle Excluder Devices or "TEDs" to ensure marine animals such as turtles and the like are not trapped by the trawl nets. A TED consists of a grid of bars with an opening either at the top or the bottom of the trawl net. The grid is fitted into the neck of a shrimp trawl. Small animals such as shrimp pass through the bars and are caught in the bag end of the trawl.

When larger animals, such as marine turtles and sharks enter the trawl they strike the grid bars and are ejected through the opening. Initial TED designs did not allow for the release of larger turtles. However, TED openings were later redesigned to address this problem.



There are various laws which govern the use of Turtle Excluder Devices. Some major points of the law are given on the next page.

Illustration courtesy: (http://cram.org/eng/pro_clinica_ted.php)

FISHERIES ACT, CHAPTER 67:51

Regulation 8 (c)
Fisheries (Conservation of Marine Turtles) Regulations
Legal Notice No. 65 of 1994

Notification of Type & Specification on Turtle Excluder Devices (TED's)

- Every Trawler which incorporates the use of a mechanical winch in its operation shall be fitted with a Turtle Excluder Device (TED) on each net.
- The deflector grid shall have an outside horizontal and vertical measurement of at least 81cm/(32inches) at the midpoint.
- The angle of the deflector bars shall be between 30^0 and 55^0 at any point through the trawl.
- The space between each deflector bar and between the deflector bars and the frame of the grid shall not exceed 10.2 cm (4 inches).
- The escape opening shall be immediately forward of the frame and centered at either the top or bottom of the net when in its deployed position.
- The passage from the mouth of the trawl through the escape opening must be completely clear of any obstruction or modification.
- The TED shall be securely sewn into the trawl around the entire circumference of the frame of the grid. An approved floatation device shall be used on all single-grid TED's.

The escape opening may be either a 181 cm (71 inches) type opening or a double cover type opening.

Specifications for the 181 cm (71 inch) type

- The opening shall measure at least 181 cm (71 inches) along the leading edge and 66 cm (26 inches) along the two forward cuts of the escape opening.
- The webbing flap shall consist of one panel measuring 332.5 cm (133 inches) x 130 cm (52 inches).
- The webbing flap shall not extend more than 60 cm (24 inches) beyond the posterior edge of the grid or be attached the sides by more than 15 cm (6 inches) beyond the same.

Specifications for the Double Cover Type

- The opening shall measure at least 140 cm (56 inches) along the leading edge and 50 cm (20 inches) along the two forward cuts of the escape opening.
- The webbing flap shall consist of two panels at least 145 cm (58 inches) wide. It shall only be sewn together at the leading edge and must not overlap by more than 37.5 cm (15 inches).





RECIPE

Soused Flying Fish

(serves 3-4)

INGREDIENTS

6 Flying Fish fillets
1 lime
1 onion, sliced
1 blade of chive, finely chopped
1 clove of garlic, crushed
1 cucumber, sliced
1 hot pepper
2 medium-sized pimentos (red and green), chopped
2 blades chopped shadon beni
Salt, to taste

METHOD

(1) Marinate flying fish fillets in a mixture of half the lime juice, salt, chive, garlic and shadon beni for 2 hours. (2) Roll the fillets and steam until cooked. (3) Add remaining lime juice, onions, pimentos and pepper to 2 cups of the water from the steam pot. (4) Add cucumber and rolls to cooled liquid and stir well. (5) Serve



FLYING FISH

Hirundichthys affinis is commonly known as the **Four-wing Flying fish, Guinea Man** or just **Flying fish**. This fish is an oceanic species which comes close to shore to spawn. It has an elongated body with two extended fins.

Flying Fish are distinguished by their long wing-like pectoral fins which are used for gliding. They are also noted for having numerous small pin bones and as such are marketed as de-boned fillets. The edible yield is approximately 38%. The flesh of flying fish is low in oil, very high in protein, firm-textured and greyish white in colour. The fish can be fried, grilled, baked or added to a sumptuous souse as in the recipe above.

(Courtesy: Marine Affairs Unit- THA)



FISH fry CORNER

WORD SEARCH

C	E	T	M	H	A	U	O	A	P
O	A	M	A	N	H	T	K	R	V
B	Q	R	H	S	K	C	A	J	T
L	W	M	I	Y	F	S	U	A	E
P	A	U	M	T	F	D	I	N	L
M	H	T	A	E	E	P	G	V	L
I	O	R	H	Y	A	B	Y	R	U
R	O	E	I	L	I	W	A	W	M
H	T	W	I	R	Y	T	U	R	H
S	Q	T	S	A	N	U	T	R	C

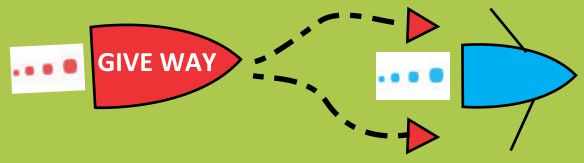
Carite
Crab
Mahi Mahi
Mullet
Pauoa
Shrimp
Tilapia
Tunas
Wahoo

Basic Navigation: Understanding Right of Way

The rules for who has the right of way on the water has one basic purpose, which is to keep you and everyone else on the water safe. These rules provide clear guidelines identifying who has the right of way in the water with the underlying safety principle that vessels must take every reasonable measure to avoid collisions.

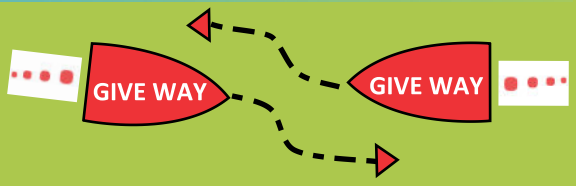
In the illustration below; the boat that has the right of way (blue boat) is called the "stand on" boat. The red boat is called the "give way" boat. The give-way boat must make an early and obvious maneuver so there can be no confusion.

VESSELS OVERTAKING



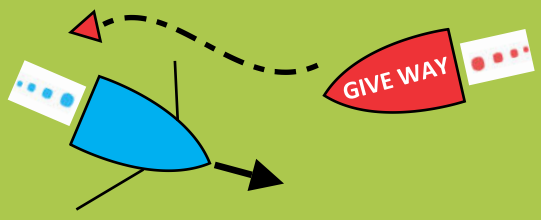
Every overtaking boat (including sail boats) gives way.

POWERED VESSELS HEAD ON

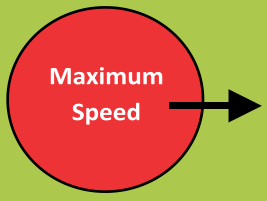


Boat vessels alter to starboard

POWERED VESSELS CROSSING



Powered boats give way to others on their starboard (right) side. Give way boats should cross behind



A maximum speed of 8mph or 5 Knots applies when:

- ✓ **Within 50m of all boats or swimmers**
- ✓ **Within 200m of shore or dive flag**

Sailing boats have different rules

Boating Safety Tips



Integrated Agriculture Aquaculture



Hydroponics is a system of growing crops in nutrient rich water, with or without the use of a soil type medium. Aquaculture, on the other hand is a system of growing aquatic plants and animals in tanks or ponds. What do these two have in common? As one would imagine individually, they are both water intensive systems, however when viewed from the perspective of interdependence, a viable business opportunity presents itself well worth exploring. The merging of an aquaculture system with a hydroponic system creates what is known as Aquaponics.

In an Aquaponics system the waste from the aquaculture fish tanks is treated with naturally occurring bacterium which converts the waste into nitrates. These are housed in a bio-filtration system where water is passed through to produce an organic, nutrient rich solution which the vegetables thrive upon. The only external input to the system is food for the fish. Each system complements the other as a single unit.

The acid/alkaline (PH) ratio of the water is balanced and recycled; as such the water remains relatively clear. To counteract the effect of water loss due to transpiration of the vegetables and through evaporation in the ponds, a small quantity of water is usually added to maintain the levels needed.



According to an August 2009 Food and Water Watch article, experimental studies at the University of Virgin Islands (UVI) show that a 29,000 gallon Aquaponics recycling system can produce 11,000 pounds of fish and 37,800 heads of lettuce per year (each lettuce weighing an average of 0.65 lbs totaling 24,570 lbs of lettuce per year).

Due to evaporation and transpiration approximately 435 gallons of water are added daily to supplement the loss (roughly 158,775 gallons yearly). In total the system uses 187,775 gallons yearly (29,000 + 158,775). The United Nations Educational, Scientific and Cultural Organization (UNESCO) has indicated that it takes approximately 15.9 gallons of water to grow a one pound head of lettuce in the ground. In order to thus grow the same amount of lettuce in the Aquaponics system (24,540 lbs) in the ground, it would take an average of 390,186 gallons of water. It follows therefore that it would take approximately 7.6 gallons of water to produce a one pound head of lettuce in the Aquaponics system which is less than half that of traditional farming and in addition there is 11000 lbs of fish produced as well.

The SIDC is currently testing a green-water tilapia production system, which would be further modified as an Aquaponics system, utilizing similar principles and anticipated to produce like and favourable results as those at the UVI, thereby charting the way for commercially sustainable Integrated Aquaculture Agriculture in Trinidad and Tobago.

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