

Food Prep & Feeding

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South Carolina
Aquarium

South Carolina Aquarium Dive Operations

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It is the mission of the South Carolina Aquarium (SCA) Dive Team to provide excellence in animal care and husbandry, to actively support both the educational and conservation endeavors of the SCA, and to provide a memorable, positive guest experience to all those who visit our facility.

Training Schedule

- Power Point Presentation
- Quiz
- Assisting with Food Prep and Feeding

Food Prep / Fish Kitchen



General Protocols

- Avoid Cross Contamination
 - > No Wetsuits allowed in Food Prep (wet or dry)
 - > GOT Food Cart not allowed in Food Prep
 - > Food Prep is the nucleus of the entire building
 - > Any disease or parasite transferred onto food prep can spread to every exhibit in the building
- Avoid spoilage
 - > All items in Freezer & refrigerator need to be in a bin & covered
 - > All items leaving Food Prep need to be fed out within an hour to avoid spoilage

Sharing Food Prep Kitchen

- While in the Food Preparation / Fish Kitchen divers should understand that the entire animal care staff must use the same room
- The dive shift in it's entirety can easily overcrowd Food Prep
- Use one small section of the counter or pace your time

Sharing Food Prep Kitchen_(cont).

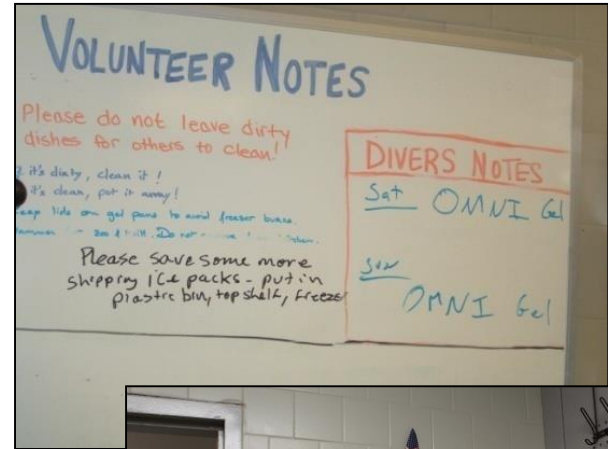
- GOT Food Prep Menu is posted on the refrigerator middle door
- The message boards may also have information relevant to the day's feeding plan
- Consult DPIC if you find any deviation with your available pulled food and the menu

GOT Food Prep Chart



Message Board Locations

- **Food Prep** - Any changes in the day's food quantity or any other relevant information may be found there
- **Dive Locker**
- **GOT Dive Log Board**



Cleanliness

- Cleanliness is important when working with raw foods
 - > Always leave your work station cleaner than when you found it
 - > All equipment must be thoroughly cleaned, using a liberal amount of disinfectant.
 - > Wash hands with soap and warm water when finished
- Nitrile gloves are available for personal protection and/or preference
 - > Protect any open wounds on hands
- Feed buckets, and utensils must be cleaned and returned to their storage space.
 - > Put all waste in the trashcans
 - > Recyclable boxes should be stored in a neat pile
- The next day's food is pulled by Husbandry Staff or Interns

Types of Food



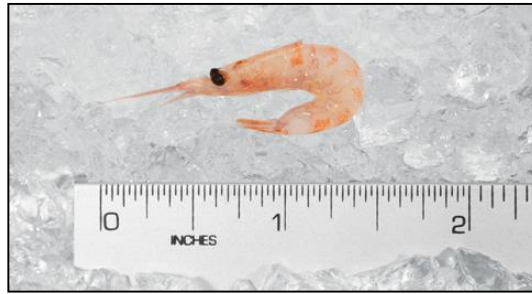
Smelt



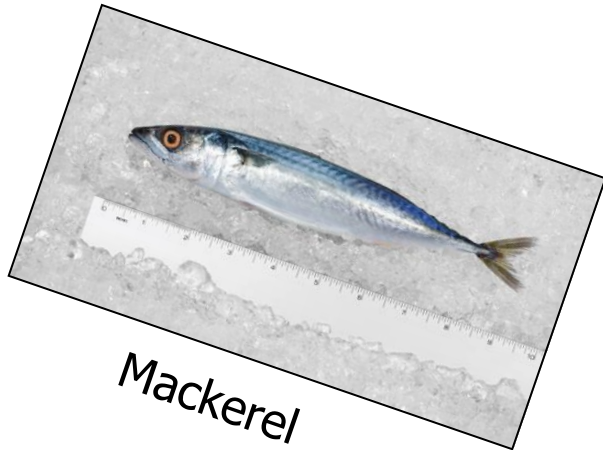
Capelin



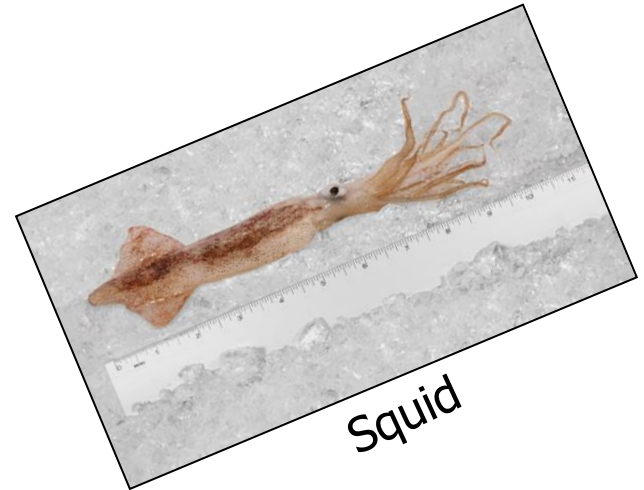
Romaine



Krill



Mackerel



Squid

Types of Food

- Squid – Whole or Strips (5 lb or 22 lb blocks)
- Mackerel (Large and Mini)
- Capelin (21 lb blocks)
- Smelt (10 lb. boxes)
- Peruvian Smelt or Silverside - (*product of Peru*)
- Krill – large *superba* species
- Romaine Lettuces (*enrichment item if available*)

Weighing the Food

How to use the scale

- Choose units (lb/kg)
 - > (We use lbs for the GOT)
- Put empty container on scale
- Press Zero or Tare button
- Add food to container until you reach the desired amount

Pounds vs Kilograms

- $2.2 \text{ lbs} = 1 \text{ Kg}$
 - > **44 lbs = 20Kg**

Cutting Food

- Most things can be fed whole
- Only certain items need to be chopped or cut
 - Basic Rule: It must fit in fish's mouth
- Once food leaves Fish Kitchen, it should be used or thrown away, ***never put back into the fridge or freezer***



Accidents or Injuries

- Report immediately to DPIC or a staff member
- First Aid & Incident Report Forms can be found outside and around the corner from the food prep kitchen



GOT Food Cart

- Use only the cart marked for GOT
- Cart must be cleaned at the end of the day
- Stored outside Food Prep overnight
- *To avoid cross contamination, do not take the cart into food prep*



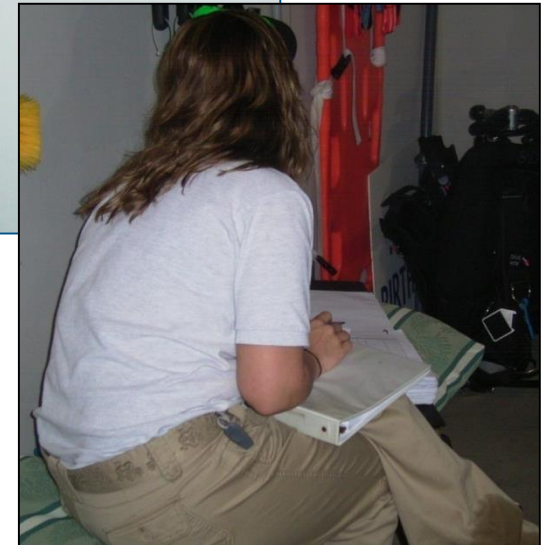
Paperwork

- Feed log is on back of dive log sheet
 - > Must be filled out daily
- An observer should be in public gallery to record who is eating and who isn't
 - > Observer takes spare Radio & communicates on Ch. 9 with those feeding

DATE: 2/20/06
Name: J. Hoover

GOT FISH Feed LOG (check off species you fed)

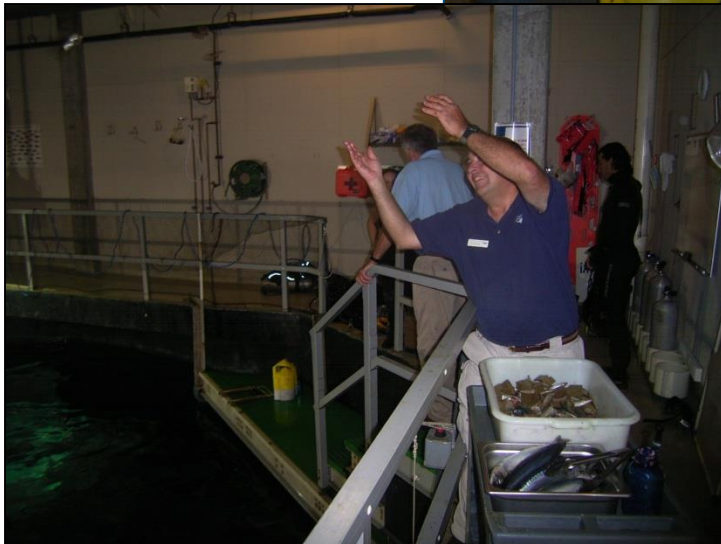
- Amberjack
- Belted Sandfish
- Black Drum
- Black Sea Bass
- Bullnose Ray
- Cobia
- Crevalle Jack
- Cubera Snapper
- Grey Snapper
- Gray Triggerfish
- Gag Grouper
- Green Moray Eel (Can be fed in tubes)
- Horse-Eye Jack
- Loggerhead turtle (feed on surface with tongs only)
- Mutton Snapper
- Mahi
- Nurse Shark (Do not feed)
- Permit
- Pinfish
- Pompano
- Porcupinefish
- Porkfish
- Red Drum
- Red Grouper
- Sandbar Shark (Do not feed)
- Sand Tiger Shark (Do not feed)
- Sheepshead
- Slippery Dick Wrasse
- Snook
- Spottail Pinfish
- Squirrelfish
- Tomtate
- Yellowtail Snapper



Feeding Methods

- Broadcast
- Drop Buckets (front window and back wall)
- Surface Target Feed
- Specialized Target Feed
 - > Eels
 - > Sharks
 - > Turtle

Broadcast Feeding

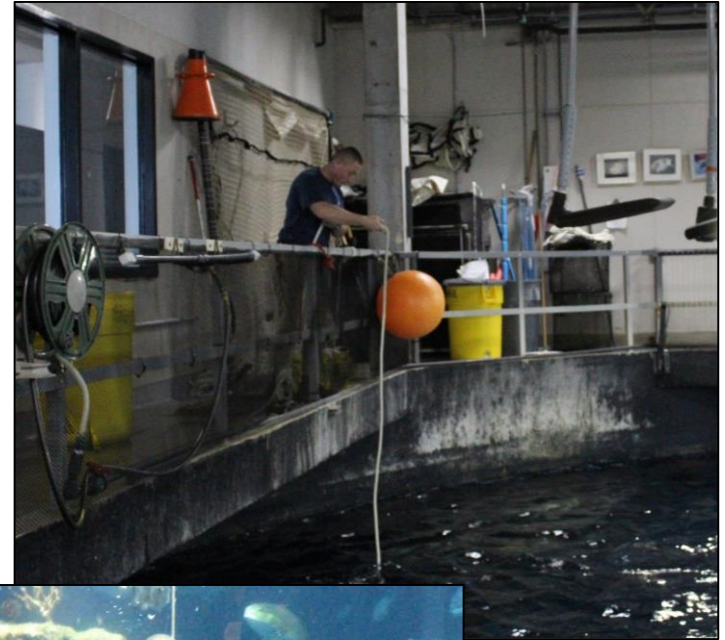


Broadcast Feeding

- Food is tossed sporadically onto the surface of the tank
- Most food will be whole, for the big pelagic fish
- Broadcast is done simultaneous to the drop bucket
- The amount of food per toss is strategic:
 - > You don't want to run out before the drop buckets are done
 - > You want enough food so fish don't cluster, fight, or crash into each other
 - > You want to spread each toss to different areas of the tank to keep fish moving
- On M/W/F save half of the broadcast to distract fish during the end of day Shark Feed

Drop Buckets

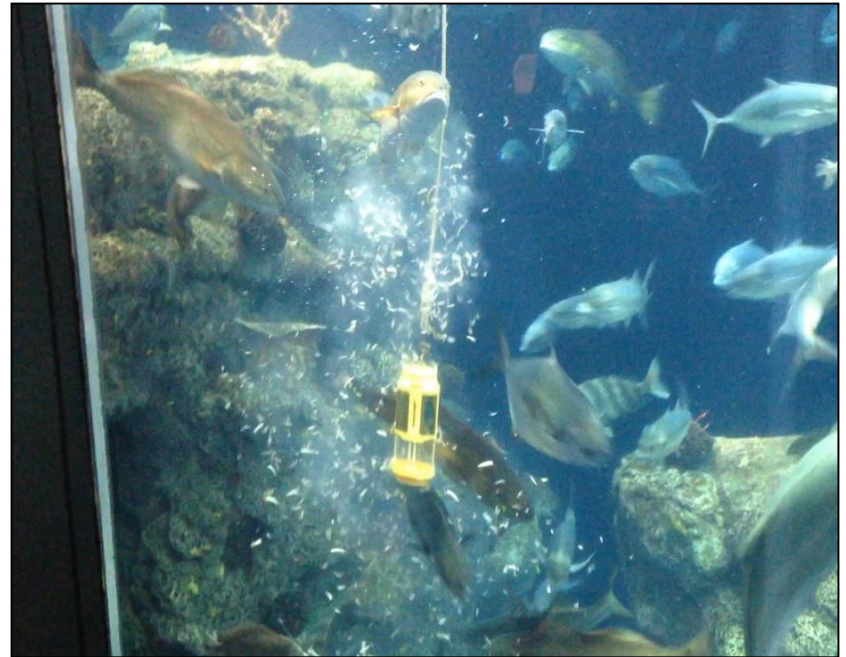
- Used to feed fish at depth
- When raising, keep rope off the rail to avoid scratching acrylic windows
- Front buckets are dropped at a 2 second delay, in sync with the Back bucket drop
 - > Back Bucket draws “clever” fish to the back
 - > These large fish will target and can open buckets on their own
 - > Front Bucket is chopped food for small mouths; the reef fish



Drop Buckets(*cont.*)

Front Buckets

- Pull and activate roughly 4-8' from the reef floor; there are 2 signal knots on the drop line
- We want food to scatter from the bucket and not settling on the floor
- Krill & small chopped pieces of food are light
 - > Pull Low 4' and then raise high 8-10'
 - > Distributes food quickly, food will take a long time to settle and can be eaten all along the reef
- Mackerel, squid, whole smelt are heavy
 - > Pull High 8' and leave high 10-12'
 - > These food items sink fast, so we want to give it a lot of room to sink



Surface Target Feeding

Targeted Species

- Cobia
- Barracuda
- Tripletail
- Tarpon
- Other animals may be added on a individual health basis by Husbandry
- These are all fed from the surface with short tongs from Feeding Platform, near Caretta's Box
- Please use caution going down the ladder to the feed platform. Go down backwards with nothing in your hands.

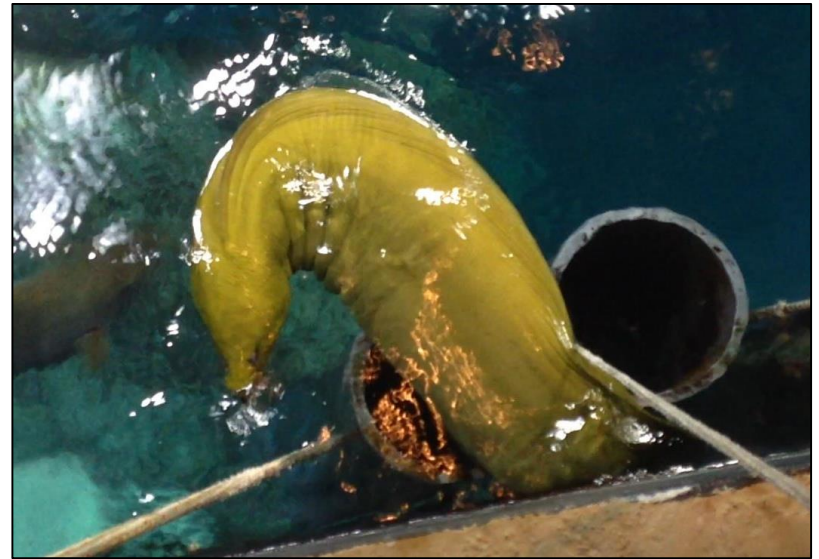


Eel Feeding

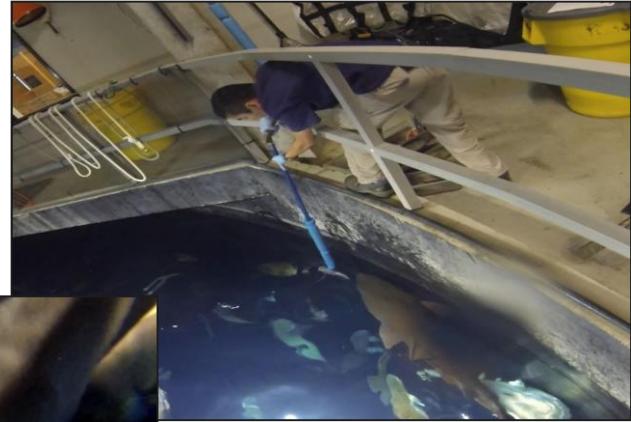
- Eels feed nocturnally
- Eel Feed Tubes are used to hide food and allow access only to eel

Daily Procedures

1. Remove any remaining mackerel at beginning of day
 - > If missing or partially eaten, record as fed on Feed Log
 - > If untouched record as DNE, Did Not Eat
 - > Mackerel can be tossed into GOT
2. Add 1x whole mackerel before end of day



Feeding the Sharks



Shark Feeding

- Diet is prepped & fed by Husbandry Staff or Interns unless specifically authorized
- Sharks fed on Monday/Wednesday/Friday, once divers have exited last dive for the day
- On M/W/F save half of the broadcast to distract fish during the shark feed

Turtle Feeding

- Diet is prepped & fed by Husbandry Staff or Interns unless specifically authorized
- Monday/Wednesday/Friday, prior to Shark Feed
- Fed in box and sunned under UV light
- Released after shark feeding is complete, to avoid competition

