

**FISHCARE TASMANIA**

# Volunteer Lesson Guides



May 2011

# Fishcare Volunteer Lesson Guide

## Unit 1 – Marine and Coastal Habitats

### *Marine and Coastal Habitats*

#### **Background and Introduction**

You have been invited into the classroom to be a resource as part of the unit on Marine and Coastal Habitats from the Marine Links Kit. You are also there to present the Fishcare message. The following notes are provided as a guide for your presentation and should be read in conjunction with the Marine Links Unit. A talk with the class teacher before your presentation will help you decide exactly what to cover in the time allocated.

Start your presentation with **an introduction about the role of the Fishcare Volunteer:**

*eg. Fishcare Volunteers are people who give up their time to educate students, fishers and members of the public about responsible fishing – they care about sustaining our fish resources for future generations.*

An understanding of the Marine and Coastal Habitats Unit will help to put your presentation in context. In this unit students will:

*“Investigate Tasmania's diverse and unique marine habitats. Students will enhance their understanding of the key features of Tasmanian marine habitats from estuaries and inlets to kelp forests and deep oceans. There is also an opportunity for students to scientifically investigate the properties of seawater.”*

### *Resources you'll need*

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Marine textbooks

*Fishes of Tasmania* posters

Fish models

Model fishing gear

Recreational Sea Fishing Guide

Fish measuring rulers

*Optional:*

•••

Roll-up banner

Map of Tasmania



## Marine and Coastal Habitats

### 1. Marine and Coastal Memories

#### 1.2 Interview

Students have been interviewing adults about their childhood times on the coast and in the Tasmanian marine environment. You might like to be interviewed by a student or simply relate your experiences as a story. The format of the interview will follow the Exercise sheet for 1.2 included in the Marine Links package.

#### Exercise Sheet for 1.2

1. What is your favourite memory of a childhood experience in the Tasmanian coastal or marine environment?
  - Who were you with?
  - Where was the location?
  - In what year did this experience occur?
  - What did you do?
  - Briefly describe the place as you remember it.
2. Have you returned to this location since? \_\_\_\_\_
  - If you have, how has it changed? Why? Please describe the changes.
3. Name your five favourite marine or coastal locations in Tasmania.

### 2. Discovering Marine Habitats

#### 2.2 Marine Profile

Students identify fishing practices that occur within different marine habitats and the target species sought. You might talk about a fishing practice with which you are familiar and the species targeted. Your talk can be illustrated with fishing tackle and photos or examples of your catch. This would be a good time to talk about rules and regulations and stress the message of only take what you need for a feed. Make sure the students are familiar with the *Recreational Sea Fishing Guide*.

#### 2.3 Topic Wheel

Students begin with making a Topic Wheel, which briefly details the things they already know and the information they would like to find out. They may ask you about the topics they want to find out about.

## 2.4 *Something From Home*

Students have been asked to bring something from home related to the Tasmanian marine and coastal environment. You might like to add something to their marine profile. It could be a shell, dried marine plant, fish skeleton. Remind students about the guideline 'look but don't take'.

## 2.5 *Marine Habitats Brochure*

Students are researching one of the ten marine habitats (see Marine Links Package for list of habitats). They have to consider:

- location and distribution
- general features
- animals and plants
- human use and influence
- importance to science, education and tourism

You might like to talk about your knowledge of a particular habitat and the relationship to fish types found in that habitat. You could talk about the fish you catch there and the methods you use. You could demonstrate how to rig rods, use equipment and good fish handling techniques.

## **4. Sea Surface Temperature**

### *Class Discussion*

Students have been discussing the temperature of seawater. You could contribute to this discussion by relating your experience with water temperature and the seasonal movement of fish. You could also relate the temperature variations to the seasonal availability of fish in retail establishments. Certain fish species are only available when water temperatures reach optimum levels. Water temperature can also affect the feeding habits of fish.

### **Conclusion**

Conclude your session with a brief time for questions. Remind the students of the important Fishcare messages. Hand out any stickers or publications you might find appropriate. Thank the teacher and class for allowing you to be part of their Unit. Offer any follow-up or resources you feel might be appropriate.

# Fishcare Volunteer Lesson Guide

## Unit 2 – Marine Life

### *Marine Life*

#### **Background and Introduction**

You have been invited into the classroom to be a resource as part of the unit on Marine Life from the Marine Links Kit. You are also there to present the Fishcare message. The following notes are provided as a guide for your presentation and should be read in conjunction with the Marine Links Unit. A talk with the class teacher before your presentation will help you decide exactly what to cover in the time allocated.

Start your presentation with **an introduction about the role of the Fishcare Volunteer:**

*eg. Fishcare Volunteers are people who give up their time to educate students, fishers and members of the public about responsible fishing – they care about sustaining our fish resources for future generations.*

An understanding of the **Marine Life** Unit will help to put your presentation in context.

*“This unit has been designed for students to investigate Tasmanian marine and coastal plants and animals. Students will enhance their understanding of the beauty and diversity of plant and animal communities in Tasmanian waters. There are also opportunities for students to investigate adaptation, threatened species and dissection procedures.”*

#### *Resources you'll need*

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*Fishes of Tasmania* posters

Fish models

Model fishing gear

Recreational Sea Fishing Guide

#### *Optional:*

...

Roll-up banner

Shells

Fish photos

Introduced pests brochure



## Marine Life

### 2 Fish Dissection

#### 2.1 Fish Dissection

As part of this unit the dissection of a fish is to be undertaken. The class teacher may ask you to conduct the dissection. You will need to be aware of the ethical/moral issues confronting the students and be prepared to support your position.

Safety is of paramount importance and you should be well prepared as outlined in the Unit. As a Fishcare Volunteer you have access to equipment and microscopes and the school may have projection equipment which will make it easier for all students to see what you are doing.

As you dissect the fish you can discuss the various features of a fish and their functions.

#### 2.2 Class Debate

The dissection of animals always raises issues. The class is conducting a debate surrounding animal rights. You might like to contribute to the debate outlining why you kill fish and how you ensure this is done in a humane way. You should be aware that there will be a wide range of views in any classroom. Some students and teachers will have contrary views to you. Do not get involved in any emotional debate on the rights of animals. Present your case in a factual manner and allow the students to reach their own conclusions.

### 6. Threatened Species

#### 6.2 Threatened Tasmanian Marine Animals

Students have been interviewing a variety of people and asking about their involvement with or awareness of any threatened species (plant or animal) in Tasmania. As a Fishcare Volunteer you should be aware of a threatened fish or plant from your locality. You could talk to the class about this threatened species and what is being done to protect it. It is important for students to have some knowledge of protected species and understand that they must not be disturbed (see *Recreational Sea Fishing Guide*).

### Conclusion

You can conclude your session with a brief time for questions. Remind the students of the important Fishcare message: **Fish for the Future**. Hand out any stickers or publications you might find appropriate. Thank the teacher and class for allowing you to be part of their Unit. Offer any follow-up or resources you feel might be appropriate.

# Fishcare Volunteer Lesson Guide

## Unit 3 – Sustainable Fishing

### *Sustainable Fishing*

#### **Background and Introduction**

You have been invited into the classroom to be a resource as part of the unit on Sustainable Fishing from the Marine Links Package. You are also there to present the Fishcare message. The following notes are provided as a guide for your presentation and should be read in conjunction with the Marine Links Unit. A talk with the class teacher before your presentation will help you decide exactly what to cover in the time allocated. The school may want to conclude this unit by seeking the assistance of Fishcare for an outdoor excursion and fishing clinic.

Start your presentation with an **introduction about the role of the Fishcare Volunteer:**

*eg. Fishcare Volunteers are people who give up their time to educate students, fishers and members of the public about responsible fishing – they care about sustaining our fish resources for future generations.*

An understanding of the **Sustainable Fishing** Unit will help to put your presentation in context.

*“This unit has been designed for students to investigate recreational and commercial fishing in Tasmanian waters and the role they can play in the conservation of fish stocks and their habitats. Students will develop an increased awareness of individual responsibility for sustainable recreational fishing, an appreciation of the diversity of recreational fishing activities, and the economic importance of the commercial wild fishery to Tasmania.”*

### *Resources you'll need*

...

*Fishes of Tasmania* posters

Recreational Sea Fishing Guide

Fish models

Model fishing gear

Roll-up banner

### *Optional*

...

Fishing rods and gear

De-hooker

Different types of hooks

Fish photos

DVDs



## Sustainable Fishing

### 1. Sustainable Fishing

#### 1.2 Factual Reports

Students have been asked to research a topic on sustainable fishing and communicate that message to the school community. This is an opportunity to present the Fishcare message. The topics students have been asked to research are:

#### 1. *Returning Undersized and Unwanted Fish to the Water*

- when must fishers return fish to the water?
- catch and release
- unhooking
- protecting the fish
- protecting the fisher

Demonstrate how to rig rods, and how the size and type of hooks may influence what is caught, such as barbless and circle hooks, plus the use of equipment such as dehookers and good fish handling techniques. You may want to mention that research is conducted on fish survival. Refer to the Flathead survival brochure: [www.fishing.tas.gov.au](http://www.fishing.tas.gov.au) > [Fishing](#) > [Recreational Fishing](#) > [Fish Species Information](#) > [Fish Species Information](#) > [Flathead](#) > [Flathead Survival Pamphlet](#)

#### 2. *Fish Handling*

- killing fish
- cleaning
- storing
- freezing
- preparation
- assessing quality

#### 3. *Fishing Restrictions*

- restrictions in your local area
- fishing zones

See the *Recreational Sea Fishing Guide*.

#### 4. *Recreational Fishing Licences*

- when are they required
- how can they be obtained

See the *Recreational Sea Fishing Guide* and use a fish measuring ruler or gauge.

#### 5. *Recreational Size, Possession and Bag Limits*

- what are size, possession and bag limits?
- why do we have them?
- how do you measure fish?

See the *Recreational Sea Fishing Guide* and use a fishing measuring ruler or gauge.



## 6. Protected Species in Tasmanian Waters

- which species are prohibited?
- why are they prohibited?
- what should fishers do if they catch a prohibited species?
- include diagrams of some prohibited species so people can recognise them.

## 7. Fishing Gear and Tackle

- what can be used by recreational fishers?
- what cannot be used by recreational fishers?
- what tackle is best for the fish, for example, barbless hooks?

You could demonstrate the different gear types using the models in the marine links kit.

### Suggested Activities

- Demonstrate how the escape gaps work in a rock lobster pot – Ask a student to try and pass the larger plastic model rock lobster through escape gaps. Try it with the smaller one. Does the equipment design assist in allowing undersize fish out?
- How nets catch fish – important to only allow a small amount of gear for recreational use, otherwise may exceed bag limits, waste fish or take unwanted bycatch?

## 2. Recreational Fishing

### 2.4 “Planning a Fishing Trip” Display

Students have been asked to plan a fishing trip. Your role is to ensure students have a thorough understanding of safety issues. These would include:

- **suitable fishing location** – safety, transport etc.
- **weather** – where can you find accurate and up to date information, consider the need to cancel the trip in the case of poor weather.
- **fishing in a group** – it is best to fish with two or three other people.
- **fishing equipment** – what do you need, is the equipment in good condition, do I have a bag for my rubbish?
- **water safety** – what should you be looking for, does your family know where you are going and how long you plan to be away?
- **boat safety** – do you have all the mandatory safety gear and know the rules? Consider the things you should not do on the water, for example, drink alcohol, ignore weather reports.
- **knowledge** – what type of fish am I aiming to catch, what are the legal size and bag limits, how do I handle undersized or unwanted fish, where am I permitted to fish?

It may be possible to organize an actual fishing trip with assistance from parents and other community members. Fishcare can provide assistance for this practical activity. Such a trip could provide a fitting conclusion to the Unit.

### 2.5 *Measuring Your Catch*

A flathead, flounder or rock lobster from the Marine Links Resource Kit can be measured to see if it is legal size. You could assist the class with this measuring exercise and also discuss how to measure other recreational fish. Discuss that the measuring tools (rulers and gauges) usually depict how to measure fish. A supply of rulers and gauges would be needed so that the class could participate.

## 3. Commercial Fishing

### 3.6 *Extension Activity*

Both commercial and recreational fisheries are important to Tasmania, you may be asked to assist students to list some of the benefits. This may include:

- Recreational fishing:
  - encourages children to be active outside with friends.
  - chance to catch own food.
  - social activity
  
- Commercial fishing offers:
  - provides fish for people that can not catch their own
  - regional employment opportunities.
  - exporting seafood makes a valuable contribution.

Students have been discussing whether it is cheaper to buy fish from a shop than to catch your own. You could contribute to this discussion by outlining your costs in going fishing. You should go beyond just the cost of recreational fishing and discuss the *reasons why you like to fish*.

## Conclusion

You can conclude your session with a brief time for questions. Remind the students of the important Fishcare message: ***Fish for the Future***. Hand out any stickers or publications you might find appropriate. Thank the teacher and class for allowing you to be part of their Unit. Offer any follow-up or resources you feel might be appropriate.

# Fishcare Volunteer Lesson Guide

## Unit 4 – Marine Reserves

### Marine Reserves

#### Background

You have been invited into the classroom to assist students to develop an understanding of Marine Reserves. Fishcare has a role in assisting recreational fishers to understand where Marine Reserves are and the associated fishing restrictions. You should be aware during the Marine Protected Planning process stage these topics may be highly divisive, with some having very polarised views. As Fishcare volunteers interact with the community at events, your awareness of some of the community views may benefit many of the discussions in this topic. Please, however be considerate of all views and keep an open mind.

Start your presentation with **an introduction about the role of the Fishcare Volunteer:**

*eg. Fishcare Volunteers are people who give up their time to educate students, fishers and members of the public about responsible fishing – they care about sustaining our fish resources for future generations.*

An understanding of the **Marine Reserves** Unit is important in the overall Marine Links Package and you should be aware of what the students will be involved in.

*“Students are provided with the opportunity to investigate the reasons for creating marine reserves in Tasmanian waters. The location, distribution and management of Tasmania’s current marine reserves will be covered. Students will also examine, through role play, the different community viewpoints about the creation of future reserves.”*

### Resources you’ll need

...

Sea Fishes of Tasmania  
posters

Fish models

Model fishing gear

Roll-up banner

Recreational Sea Fishing  
Guide



## *Tasmanian Marine Nature Reserves*

You should be aware that Marine reserves are sometimes depicted as Marine Nature Reserves. You do not need to know the exact location of Tasmanian marine nature reserves, however you should be able to assist students to find information about the location and fishing restrictions in the latest copy of the Recreational Sea Fishing guide.

## *Role Play – developing a new Marine Reserve*

Students are provided with the opportunity to investigate the reasons for creating marine reserves in Tasmanian waters. The location, distribution and management of Tasmania's current marine reserves will be covered. Students will also examine, through role play, the different community viewpoints about the creation of future reserves.

The government periodically enters into a Marine Protected Planning process. Initially regions or larger type of areas are identified on their scientific value. Extensive public consultation then follows. During various stages, particularly leading up to the time to the nomination of the area these topics may be highly divisive.

Your role could be one of observer or assistant during this topic. You could be asked to be part of the audience in the role play or assist students in developing their speeches. If invited, you could provide your view on Marine Reserves. Your input could help focus the role play exercise toward identifying the objectives of the prospective reserve and the community values. Your experience as a Fishcare volunteer interacting with key user groups may benefit the discussions.

Remember, students will be investigating arguments for and against and looking for important facts which will help them form their own view. Your comments should be factual and presented in a balanced fashion. Please, however be considerate of all views and keep an open mind. If your views are sought students should be encouraged to invite a contrary view from another community member to ensure a balanced presentation.

## **Conclusion**

As you would not be the focus of this Unit there would be no need to make any final comments. If given the opportunity you could reiterate the Fishcare message and thank the students for allowing you to be part of their activities.

# Fishcare Volunteer Lesson Guide

## Unit 5 – Human Influences on the Marine and Coastal Environment

### *Human Influences*

#### **Background and Introduction**

You have been invited into the classroom to be a resource as part of the unit on Sustainable Fishing from the Marine Links Package. You are also there to present the Fishcare message. The following notes are provided as a guide for your presentation and should be read in conjunction with the Marine Links Unit. A talk with the class teacher before your presentation will help you decide exactly what to cover in the time allocated.

Start your presentation with **an introduction about the role of the Fishcare Volunteer:**

*eg. Fishcare Volunteers are people who give up their time to educate students, fishers and members of the public about responsible fishing – they care about sustaining our fish resources for future generations.*

An understanding of the **Human Influences** Unit will help to put your presentation in context.

*“This unit has been designed for students to investigate the influences of cultural, economic and recreational activities on the Tasmanian marine and coastal environment. Students will investigate the ways in which people and the marine and coastal environments are interdependent, the role of local community groups, the influence of pollution and as a concluding activity, plan and undertake civic action for the benefit of their local marine and coastal environment.”*

### *Resources you'll need*

...

Junior Recreational Fishing  
Passport

Abalone Viral  
Ganglioneuritis Brochure

Identification Guide –  
Current Marine Pests

Dried Northern Pacific  
Seastar or Undaria or  
green crab



***Fishcare***  
**TASMANIA**

## Human Influences

### 2.3 Beach Litter Survey

You could talk about some of the rubbish you have found in the marine and coastal environment and the potential impacts such as animals getting caught up in plastic twine, fish mistakenly eating plastic as it appears as food – clear plastic appears as jellyfish. You may also bring a collection of rubbish found on a beach and talk about pollution.

Re-enforce the relevant messages from *The National Code of Practice for Recreational and Sport Fishing*:

- Don't leave your tackle behind
- Take your rubbish with you
- Clean up your fishing area before you leave
- Use established roads and tracks
- Be considerate towards other fishers

### 3.1 Introduced Marine Pest

Aquatic pests and diseases are harmful to our marine environment. Over 250 introduced marine plants and animals have 'hitch-hiked' to Australian waters on vessels of all types from yachts to commercial ships. Once established in our waters, pests and diseases can cause a range of environmental impacts and can also damage fishing, aquaculture and tourism industries. Getting rid of them once they are established is virtually impossible. An example is the Northern Pacific seastar.

If available, you could take a dried northern pacific seastar, *Undaria* or green crab into show the class. You could also take a native specimen that looks similar for comparison.

You should be aware of the ways that reduce the risks of spreading marine pests. You do not need to know all the potential marine pests, however make yourself familiar with the basic identification of the common marine pests. This includes *Undaria*, green crab and Northern Pacific seastar. You should be able to assist students to find information in the latest copy of the Recreational Sea Fishing guide. You may have a copy of the "Identification Guide - Current Marine Pests" that the Department produces.

Note that a permit from DPIPWVE is required to have marine pests in your possession so schools need to have this in mind if they seek to collect specimens for class projects.

### 3.2 Marine Diseases

You should be aware of the ways that reduce the risks of spreading marine disease. To reduce the risks of spreading disease, fish should not be transferred from one area to another. If fish are filleted and cleaned at sea then dispose fish waste in the same area that it is caught.

Be aware that quarantine laws, such as the prohibition on importing certain marine products, and quarantine procedures, such as cleaning requirements reduce the chance of bringing disease into Tasmania. For example some products are only allowed to be imported when they are cooked. Fishing gear that has been used in Victorian waters may need to be cleaned before bringing into Tasmania.

Familiarise yourself with current disease incursions in Tasmania - an example of this may include Abalone Viral Ganglioneuritis. You may like to refer to the latest brochure on this.

### 3.3 Community Groups – Interview Poster

A number of community groups involved in improving the state of the Tasmanian marine and coastal environment are listed for the students to investigate. As a Fishcare Volunteer you could be selected to be interviewed in an effort to find out what is being done to make a difference. Your answers could include information from the *Junior Recreational Fishing Passport* under the following headings:

*“You’re the solution to water pollution”*

Take home all rubbish created when fishing

Clean up unwanted hooks, line, bait and bait bags

Understand that wildlife may be harmed if rubbish is not removed

Keep our water clean and healthy for fish, fishers and other wildlife.

*“Quality catchments equal quality fish”*

Healthy waterways are best for quality fish

Introduced pests may harm native fish and their habitat

Good management of our waterways makes sure there will be quality fish and fishing sites for the future.

### Conclusion

This is the last unit in the Marine Links Package. If you have been involved over multiple units you should have developed a close relationship with the class and have had ample time to present the Fishcare message in a variety of ways. You can conclude your session with a brief time for questions. Remind the students of the important Fishcare message: ***Fish for the Future***. Hand out any stickers or publications you might find appropriate. Thank the teacher and class for allowing you to be part of their Unit. Offer any follow-up or resources you feel might be appropriate.



**Recreational Fisheries**

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## FISHCARE SCHOOLS PROGRAM

### Teacher appraisal form

To assist the Fishcare Schools Program with quality control and to provide feedback to the visiting Fishcare Volunteer, we would appreciate it if the classroom teacher could complete this evaluation form and return it to Fishcare Tasmania at the above address or email to [fishcare@dpipwe.tas.gov.au](mailto:fishcare@dpipwe.tas.gov.au)

**Name of School:**

**Date of Visit:**

**Grade/s:**

Name of Fishcare Presenter:	
Teachers Name and Number of Students in Class	
Did the Presenter arrive on time?	
Was the Presenter easily recognisable as a Fishcare Tasmania Volunteer?	
Was he/she well prepared with adequate teaching aids, literature and brochures	
Did the Presenter's message align with what students are studying in the classroom?	
Did they succeed in delivering this message to the students?	
Have you any other comments?	