Seafood Industry Partnerships in Schools – Program Pilot, Tasmania

Lowri Pryce and Jennifer Hemer



Project No. 2009/328

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Non-Technical Summary

2009/328 Seafood Industry Partnerships in Schools - Program Pilot,

Tasmania

PRINCIPAL INVESTIGATOR: Lowri Pryce

ADDRESS: OceanWatch Australia

Locked Bag 247 Pyrmont NSW 2009

Telephone: 02 9660 2262 Fax: 02 9660 2786

OBJECTIVES:

1. Develop and trial a pilot educational program between seafood industry and school classes year 1 to 10 in Tasmania with a view to National extension.

- 2. Facilitate new and existing partnerships between schools and commercial fishers and aquaculture operators.
- 3. Facilitate work experience opportunities for young people.
- 4. Provide opportunities to increase general community understanding of complexities of marine utilisation as well as cultural fishing practices.

KEYWORDS: Seafood Industry, Partnerships, Education.

NON TECHNICAL SUMMARY:

OUTCOMES ACHIEVED TO DATE

Beneficiaries of the outcomes of the Seafood Industry Partnerships in Schools Program Pilot, Tasmania include: all sectors of the seafood industry, teachers, students, general public, and NRM organisations.

The outcomes achieved to date include:

- Increased exposure of young people to careers in the commercial seafood industry, with longer term succession planning benefits for the industry
- Improved public understanding of industry and practices leading to better relations with the community
- Contributed to building the capacity of commercial fishers and marine farmers to engage with their local communities
- Increased opportunities for positive media surrounding the seafood industry by promoting the good news stories
- Provision of a new seafood industry educational resource to complement existing resources
- Improved access to current information about sustainable marine resource use and methods, and marine farming practices
- Provision of interactive learning and vocational opportunities about the

seafood industry

- Creation of work experiences opportunities in the seafood industry for some students
- Greater interaction between schools, the public and local seafood industry operators
- Improved public understanding of the issues facing the seafood industry, building the capacity of students to engage in meaningful debate around issues affecting the seafood industry and the supply of seafood

The Seafood Industry Partnerships in Schools (SIPS) Project Pilot, Tasmania commenced as a trial in 2009 between the Tasmanian OceanWatch Australia SeaNet Officer; Commercial Fisher Bryan Denny; and Lauderdale Primary School in southern Tasmania. The concept escalated into a formalised collaborative partnership between OceanWatch Australia, the Tasmanian Seafood Industry Council, the Tasmanian Department of Education and members of the Tasmanian seafood industry.

The SIPS Program consists of two program streams: Adopt a Fishing Boat and Adopt a Marine Farm. Under each program, educational partnerships are created between $Yr\ 1-10$ classes and a fisher or marine farmer. Each stream enables students to learn that the fishing industry is an important part of their community, and to gain an understanding of the steps that the seafood industry is taking to improve sustainability and meet a variety of environmental challenges. It also enables older students to understand and experience the range of careers available in the seafood industry.

As the project has built momentum, schools are independently contacting the project officer requesting a fisherman or marine farmer to form a partnership and some schools are actively recruiting seafood industry professionals from within their own communities. There are currently 24 partnerships between fishers / marine farmers and schools. These partnerships have delivered face to face information to over 500 school students and teachers. Furthermore, other Australian states have shown considerable interest in adopting the SIPS concept.

The SIPS Program enables commercial fishermen and marine farmers to communicate their knowledge, experience and passion for the seafood industry in schools across Tasmania.

The SIPS program aims to communicate three key messages directly from the seafood industry, with commercial fishermen and marine farmers acting as educators and advocates for their industry:

- 1. The seafood industry recognises and promotes the importance of ecological sustainability and improving its environmental performance; in particular,
 - a. The seafood industry promotes and practices "best practice" to support ecological sustainability.
 - b. The seafood industry aspires to improve environmental performance.

- 2. The seafood industry utilises a resource on behalf of the whole community, and is an industry which spreads economic benefits across the community; and
- 3. The seafood industry offers career opportunities across a range of occupations.

SIPS partnerships are flexible, to suit the lifestyle of commercial fishermen and marine farmers. Some fishermen have opted to go into the classroom and talk with students face to face about their 'job', taking in video footage from on board their vessels, gear to show the students, navigational charts and participating in question and answer sessions. These fishermen have sent emails and text messages to the class teacher from sea, enabling students to 'follow' their journey and understand what it means to be at sea and harvesting seafood. Marine farmers and seafood processors have opened their doors to students, revealing the range of career opportunities within the industry. Further still, some students will visit wharves and learn to appreciate differences in vessels and equipment used in the industry, while others will taste different sorts of seafood for the first time.

The SIPS Program has met all of the objectives outlined in the original funding application by developing an educational resource about the seafood industry for Years 1 – 10; facilitating new and existing educational partnerships between commercial fishermen, marine farmers and school classes; facilitating work experience opportunities for young people; and providing opportunities to increase public understanding of the complexities of marine resource utilisation.

Acknowledgements

The authors acknowledge the Tasmanian Seafood Industry Council Board, the Tasmanian Department of Education, the Woodbridge Marine Discovery Centre, Tassal Group Ltd and OceanWatch Australia's SeaNet Program for supporting the Seafood Industry Partnerships in Schools program through the provision of access to professional networks to promote the program, as well as providing representation on the program Steering Committee.

Background

The Seafood Industry Partnerships in Schools (SIPS) Program Pilot commenced as a trial in 2009 between OceanWatch Australia's Tasmanian SeaNet Officer; Commercial Fisher Bryan Denny; and Lauderdale Primary School in southern Tasmania. In 2010 the concept escalated into a formalised collaborative partnership between OceanWatch Australia, the Tasmanian Seafood Industry Council, the Tasmanian Department of Education and members of the Tasmanian Seafood Industry.

The SIPS project enables commercial fishermen and marine farmers to communicate their knowledge, experience and passion for the seafood industry in schools across Tasmania.

The project aims to communicate three key messages from the seafood industry, with commercial fishermen and marine farmers acting as educators and advocates for industry:

- 1. The seafood industry recognises and promotes the importance of ecological sustainability and improving its environmental performance;
 - a) it promotes "best practice" to support ecological sustainability, and
 - b) it and aspires to improve environmental performance.
- 2. The seafood industry utilises a resource on behalf of the whole community, and is an industry which spreads economic benefits across the community;
- 3. The seafood industry offers career opportunities across a range of occupations.

Need

School teachers report difficulty in accessing relevant and accurate information about the marine environment, current sustainable commercial fishing and marine farm practices. This, coupled with a recognised paucity of young people embarking on a career in the seafood industry indicated a need for greater interaction between the seafood industry and the educational sector.

A general lack of knowledge and understanding about commercial fishing practices in the public arena has contributed to poor public perception of the seafood industry, resulting in negative and ill informed public attitudes to commercial fisheries.

Objectives

- 1. Develop and trial pilot educational program between seafood industry and school classes year 1 to 10 in Tasmania with a view to National extension.
- 2. Facilitate new and existing partnerships between schools and commercial fishers and aquaculture operators.
- 3. Facilitate work experience opportunities for young people.
- 4. Provide opportunities to increase general community understanding of complexities of marine utilisation as well as cultural fishing practices.

Methods

The SIPS project operates as two streams: Adopt a Fishing Boat and Adopt a Marine Farm. Under each stream, Tasmanian school classes from years 1 – 10, across both the private and public school systems, form a partnership with either a commercial fisherman or a marine farmer.

Creating and Registering Partnerships

Teachers, commercial fishermen and marine farmers contact the SIPS Project Officer to be partnered with a class. Both parties in the partnerships are interviewed to identify their individual needs and preferences, such as travel distance, age appropriateness and partnership ideals. When an appropriate partnership is identified, an arrangement is made for a meeting. Partnerships often come about due to an existing relationship between the class teacher and seafood industry representative, such as a class parent relationship or interactions within communities. There are three key means of creating a partnership:

- OceanWatch Australia's SIPS Project Officer (or SeaNet Officer) acting as a facilitator, can bring interested fishermen or marine farmers and teachers together.
- A teacher may initiate a partnership
- A fisherman or marine farmer may initiate a partnership

All participants are encouraged to register their interest and partnership with the SIPS Project Officer as a method of monitoring partnerships, evaluating the reasons why people become involved in the project and to identify suitable partnerships where there is no pre-existing relationship between participants.

New partners (teachers and fishermen) are encouraged to discuss their availability and commitment, with the support of the Project Officer as necessary. This can be done by meeting face to face, via a telephone conversation or email. Partners are asked to consider:

- How often fishermen and marine farmers would like contact with their class, and how much time are they prepared to contribute?
- How will fishermen and marine farmers communicate with their class?
- What is the busy time of year and down-time?
- What kind of information can be shared with a class (for example, information about catch, costs or fishing location)?
- Can fishermen or marine farmers provide any 'hands-on' experiences for your class?
- How do teachers want to use their fisherman/marine farmer in the classroom?
- What are some project or excursion ideas which can be shared?

It is essential that all commercial fishermen and marine farmers who enter schools in Tasmania complete a 'good character check'. A form is available for download from the Department of Education. The 'good character check' ensures the safety of students. A document has been created for the SIPS program which outlines the importance of safety checks, the roles and responsibilities of commercial fishermen

and marine farmers who become involved in educational partnerships, and legal requirements. This document can be found as part of the Guide to the SIPS Program in Appendix 2.

Partnerships are flexible to suit partner interests, availability and the class room situation. The duration of a partnership is negotiable. Possible partnership activities include:

- Commercial fishermen visit a class, providing face to face contact
- Students ask questions about day-to-day activities at sea or on a marine farm
- Boat or wharf visits by classes or individuals
- Fishermen contribute their first-hand knowledge of the seafood industry to the unit of work the teacher is developing
- Regular at-sea email contact between fishermen and the class, providing an update of fishing activities.
- Work experience placements.

Marine farmers contribute in the following ways:

- Farm tours
- Hatchery tours
- Processing facility tours
- Class visits and activities

A detailed list of suggested activities has been developed to guide partnerships.

Steering Committee

The SIPS Program is coordinated by a part-time Project Officer, under the guidance of a Steering Committee. The Committee enables access to networks, in both the education sector and seafood industry, through which the SIPS Program can be promoted. It also informally monitors the level of understanding about the seafood industry in the general community. The Committee offers support and advice to the Project Officer, and also monitors progress toward agreed milestones in a work plan.

Promotion and Recruitment

The SIPS Program is promoted, and partner commercial fishermen, marine farmers and teachers are recruited, through:

- Industry networks (such as the Tasmanian Seafood Industry Council mail distribution lists)
- Educator networks (such as the Marine and Coastal Studies Group)
- Department of Education publications (such as the 'Infostream' intranet)
- A regular article in 'Fishing Today' magazine, as well as endorsement of the program in the same publication
- The SIPS newsletter, which is sent to a large network of Tasmanian and interstate recipients who have expressed interest in receiving the publication
- The OWA SeaNet newsletter
- Attendance at community events (such as AgFest)

- Regional NRM networks
- OceanWatch Australia website, and links from the TSIC and Woodbridge Marine Discovery Centre websites

Advocacy by a small number of motivated and committed SIPS Program 'Champions' has been crucial to the recruitment of seafood industry participants to the program.

Related Activities

In addition to creating partnerships, the SIPS Program offers opportunities for teachers, commercial fishermen, marine farmers and representatives of the seafood industry to come together and discuss how the seafood industry can be represented in the education sector.

Where possible, the SIPS program has been strategically aligned with organisations, programs and resource providers with complementary aims.

Evaluation

The project is qualitatively evaluated through regular phone and email contact with all participants from the education sector and seafood industry. Participants have been asked to:

- Complete a phone interview about their experiences with the SIPS project
- Send informal feedback about their experiences via email, including learning outcomes
- Send photos of students and student work via email

Numbers of students, classes, schools, commercial fishermen and marine farmers involved in the SIPS project are recorded as a means of quantitative evaluation.

Results

Program content Key Messages

At the commencement of the SIPS Program Pilot, Tasmania, the Program Steering Committee agreed upon 3 key messages which would underpin all communication about the program and the seafood industry.

Those messages are that the seafood industry:

- 1. recognises and promotes the importance of ecological sustainability and improving its environmental performance;
- a) promotes "best practice" to support ecological sustainability, and
- b) and aspires to improve environmental performance.
- 2. utilizes a resource on behalf of the whole community, and is an industry which spreads economic benefits across the community;
- 3. offers career opportunities across a range of occupations.

Program Statistics

Analysis of the number of schools, classes, students and seafood industry participants is detailed in Table 1:

Table 1: Numbers of participants in the SIPS Program Pilot, Tasmania

Participant	Number
Schools	18
Classes	24
Students	500
Commercial Fishermen, Marine Farmers and	17
Seafood Industry Representatives	

The SIPS Program has attracted schools from around Tasmania, including the West and North West coasts, the North coast, the East coast, the South East (Hobart) region, the far South and inland.

In some schools, teachers have combined classes (both horizontal and vertical year level groups) to maximise the time volunteered by the partner fisherman. This generally occurs when a commercial fisherman visits a school.

Some fishermen have opted to visit more than one school or class, and therefore form multiple partnerships. A more detailed view of class partnerships under both the Adopt a Fishing Boat and Adopt a Marine Farm streams can be seen in Table 2.

Table 2: Schools, Commercial Fishermen and Marine Farmers involved in Adopt a Fishing Boat and Adopt a Marine Farm partnerships under the SIPS Program.

School	Teacher	Commercial	Industry Sector	Year
		Fisherman or Marine		
		Farmer		
Kingston Primary	Jill Johnson	Clive Perryman	Rock Lobster	Yr 4
Kingston Primary	Kylie Hughes	Clive Perryman	Rock Lobster	Yr 3
Snug Primary	Kate Salter	Brendan Taylor	Rock Lobster	Prep
Ogilvie High	Claire Blichfeldt	Linda Sams (Tassal)	Salmon Farming	Yr 9/10
Ogilvie High	Claire Blichfeldt	Julian Harrington	TSIC	Yr 9/10
Rose Bay High	Michelle Oates	Bryan Denny	Rock Lobster	Yr 9/10 -
Rose Bay High	Michelle Oates	Bryan Denny	and Abalone Rock Lobster	Class 1 Yr 9/10 -
Nose bay nigii	whichelie Oates	bryan Denny	and Abalone	Class 2
Lindesfarne North Primary	Damon Nichols	Chris Parker	Rock Lobster	Yr 5/6 (4 classes)
Rosny College	Jim Delany	Doug Paveley (Tassal)	Salmon Farming	Special needs
Dover DHS	Peter Walker	Glenn Jager	Rock Lobster	Yr 1
Dover DHS	Martin Chance	Mark Munnings	Unknown	Yr 5/6
Bruny Is Area School	Naomi Buczek and Lee Macefield	Joe Bennet	Oyster Farming	Yr 4
Geeveston DHS	Alan Poole	Duane Baker (Tassal)	Salmon Farming	Yr 9/10
Geeveston DHS	Alan Poole	Clive Perryman	Rock Lobster	Yr 9/10
Lindisfarne Primary	Lindsay Adlam	Chris Parker	Rock Lobster	Yr 5/6
Triabunna DHS	Sean McCarthy	Haydn Dyke	Mussel Farming	Yr 9/10
Triabunna DHS	Sean McCarthy	Sam Rose	Marine Tourism Fishing Charters	Yr 9/10
Triabunna DHS	Sean McCarthy	Spring Bay Mussels	Mussel Farming	Yr 9/10
Cosgrove High	Rob Thomas	Fiona Ewing	Salmon Farming	Yr 10
Taroona High	Jamieson Smalley	Clive Perryman	Rock Lobster	Yr 9/10
Holy Rosary Primary	Luch Brighella	Rod Shelley (Mures)	Scalefish processing	Special needs
Rosebery High	Duncan Murfet	Lindsay Newman (Retired)	Rock Lobster	All Primary Classes
Lauderdale Primary	KerryAnne Jones	Bryan Denny	Rock Lobster and Abalone	Yr 2
Penguin Primary	Janeen Lillas	Chris Parker	Rock Lobster	Yr 5/6
Montrose Big Picture School	Amanda Sutton	Rod Shelley (Mures)	Scalefish processing	Yr 9
Sacred Heart Catholic Primary	Phill van Ryn	Bill Hughes	Oyster Growing	Yr 2 (2 classes)

Woodbridge	Pam Elliott	Neil Stump	TSIC	Yr 9/10
Marine Discovery				
Centre				

Feedback

As part of regular evaluation of the SIPS program, teachers and fishermen offer verbal and written feedback about theirs and their student's experiences with the program, and why they became involved. Some of the feedback communicated directly to the Project Officer, includes:

"Thanks once again Jennifer. We had a sensational day & the weather gods were kind to us. It will be an experience that will stay with them (the students) for a long time. Will Mure himself addressed the class over lunch and he was excellent."

Lindsay Adlam, Teacher, Lindisfarne Primary

"The tour of Mures was great. We walked from school in approx 40 minutes and arrived early. We were welcomed and led into a conference room.

Rod the General Manager described the history of the family business, and the difference between trawling and long line fishing. We donned red hats and went for a walk around the fish factory. We were divided into two groups. David was our guide and he was really informative. I was impressed with all the stainless steel and how technology keeps fish chilled and out of the danger zone.

Nothing is wasted – crushed scallop shells for fertiliser, fish bones into fish stock. Rod was really good too. The students enjoyed putting on the hats, reacting to the fish smells, but having the opportunity to visit a successful food business in our local community was great."

Amanda Sutton, Advisor, Montrose Big Picture School

"We had a very informative tour of one of the TASSAL leases when we were down at the MDC (Woodbridge Marine Discovery Centre) a few weeks ago and the students are doing their report on all the activities covered in the (D'Entrecasteaux) Channel now."

(At the SIPS Program Launch) I was able to meet and talk with some people from the fishing industry, and it made me realise that I've been teaching from the environment perspective, and not including the industry perspective.

I learnt more in an hour listening to Linda (from Tassal) than I have in the last 10 years. It was fantastic. She was honest when the kids asked questions relating to the environment and impacts, such as fishing one species to feed another. Of course she understated the negatives (environmental impacts) and focussed on the positives, but teaching is all about listening to the perspectives and encouraging the students to question."

Claire Blichfeldt, Teacher, Ogilvie High

"I have visited Lindisfarne North Primary school twice, plus the walk around at Vic Dock (with Lindisfarne Primary School). I believe that all visits have been received well."

"Penguin was great, the teacher and the kids I think enjoyed the presentation."

Chris Parker, Commercial Fisherman

"Chris Parker visited Lindisfarne North Primary and the kids enjoyed touching a crayfish and learning about the rock lobster industry.

Due to the nature of school life, the marine unit was quite brief but nonetheless I appreciate Chris' contribution and would very much like to work with him again."

Damon Nichols, Teacher, Lindisfarne North Primary school

"I was really excited when I read your flyer on the infostream (Dept. of Education intranet). I am always looking for something different and interesting.

I teach Animal Studies as an option to grades nine and ten students. I have two classes for this subject. We look at four categories, Domestic, Wildlife, Livestock and Marine. Last year I did very little on Marine, partly because I do not have a broad knowledge/expertise in this area. The year before I had a chap come and visit from fisheries and we did look briefly at commercial and recreational fishing.

I would be very interested to be involved with the partnership. At the start of the year students fill out forms about their interests and a considerable amount listed interests in this type of area.

Any information and assistance with furthering student knowledge (and mine!) in this area would be gratefully accepted."

Michelle Oates, Teacher, Rose Bay High

"This would be great for developing Information Communication Technology in our older students (referring to receiving text messages from sea)."

Janet MacKenzie, Principal, Zeehan Primary

"Clive (partner fisherman) was well spoken, very relaxed, pitched at the right level, great with the kids."

Jill Johnson, Teacher, Kingston Primary

"Brendan (partner fisherman) gave the class a great talk and showed them his fishing clothes and gear and a crayfish. They really enjoyed it."

Kate Salter, Teacher, Snug Primary

"We researched a sea creature native to Tasmania. We also mapped where Clive (partner fisherman) went fishing as we kept in contact via text message.

The students found Clive absolutely fantastic along with his presentation and there was much anticipation waiting for his text messages."

Kylie Hughes, Teacher, Kingston Primary

"Not only was it good fun for me, but it was great for my son. Suddenly he's got a real understanding of what I do for a living and the kids in his class are like 'oh wow, your Dad does THAT'! Fishing's not like other jobs.

The kids were a bit shy to start with, but they must have been talking about it because all of a sudden they started asking me about the size of an abalone, and how much diesel I put in the boat, and how much I earn! The day I took my gear in to show them, I reckon my wetsuit was put on and taken off about 28 times.

I gave the class a chart and then emailed them to tell them where I was fishing. They plotted where I'd gone, how many nautical miles I'd done, and even how much diesel I was using and the cost of it."

Bryan Denny, Commercial Fisherman

"I hadn't planned to do a marine (learning) unit this year, but if I can form a partnership, I will create one."

Janeen Lillas, Teacher, Penguin Primary School

"I'm just waiting for that really enthusiastic kid to walk through the door. I'll give anyone a chance.

People don't understand that it's not just filleting fish, but a range of careers. We've got people involved in quality assurance, administration, diving and even vets out on our farms. Careers like quality assurance and administration use skills you can take anywhere."

Duane Baker, Tassal (on why he is involved in the SIPS Program).

Related activities

Networking sessions and the official project launch have offered opportunities for people to be involved in the project without having to commit the time to a classroom partnership, therefore extending the influence of the project and its outcomes. It is estimated approximately 110 people have discussed the SIPS Program during these events.

Links to on-line resources and materials published by the industry are available to teachers through the Project Officer. Provision of these materials ensures that the seafood industry can be included in a learning program exclusive of a SIPS partnership arrangement.

The SIPS Project Officer and OceanWatch Australia team members have interacted with the Primary Industries Education Foundation to promote the SIPS program as an educational resource through the PrimeZone website and to discuss the opportunity for the SIPS program to be promoted to teachers through a series of professional learning opportunities in each State capital city.

Through SIPS program communication activities, the Working on Water program has been promoted to schools where students participate in Adopt a Fishing Boat or Adopt a Marine Farm partnerships.

The Marine Links education resource and Fishcare Program, both operated by the Tasmanian Department of Primary Industries, Water, Parks and Environment, and the SIPS program offer mutual promotion to targeted audiences.

Discussion

The *Adopt a Fishing Boat* partnerships have been dominated by a small number of highly committed and motivated Rock Lobster fishermen. In Primary school class partnerships, discussion during class visits includes the marine environment (with some fishermen showing underwater footage), fishing methods and equipment (with some fishermen taking live catch under permit and fishing equipment for display), life at sea and logistics.

Primary School teachers request information about commercial species, fishing methods and technologies. Secondary school teachers and their students seek to understand the more complex issues of resource management. Secondary schools request information about career pathways into the seafood industry and work experience opportunities.

At least two students from Tasmanian Secondary schools will participate in work experience in 2011 as a result of class partnerships under the SIPS Program. Adopt a Fishing Boat partnerships typically last beyond one school visit by the fisherman, with text messages being sent from sea, and follow-up visits planned.

The *Adopt a Marine Farm* partnerships and partnerships formed with fish processors and retail businesses are typically one off visits where students travel to a facility (rather than a representative visit the school) with no further exchange planned between partners. The emphasis of these partnerships is to offer students an opportunity to find out about successful local businesses and exposure to career and employment possibilities. Occupational health and safety, quality assurance and resource sustainability issues are typically discussed in these partnerships.

As demonstrated, all SIPS Program participants have provided positive feedback about their involvement in the program. The program was also awarded the Seafood Industry Promotion Award at the Tasmanian Seafood Industry Awards because it promotes the seafood industry across all sectors at a local level.

A number of impediments have been identified which have prevented creation of more partnerships. Those are:

- More class teachers expressing interest than commercial fishermen
- School commitments preventing teachers from becoming involved or further involved in the Program
- Low industry response in some parts of the State
- Commercial fishermen experiencing time constraints

Where a teacher has registered to be involved in the SIPS Program and there is no immediate seafood industry participant with whom to form a partnership, the teacher is offered information about the seafood industry including published material from program supporters and links to on-line resources.

Benefits

The SIPS Program has benefited the seafood industry across all sectors, including a variety of wild catch species, farmed marine species, processors and retailers. The program benefits the industry by:

- Increasing the exposure of young people to careers in the commercial seafood industry, which has succession planning benefits for the industry
- Improving public understanding of industry and practices leading to improved relations with the community
- Building the capacity of commercial fishers and marine farmers to engage with their local communities
- Increasing positive media surrounding the industry by promoting the good news stories

The education sector, including teachers and students, has benefited by:

- The provision of a new educational resource to complement existing resources
- Improved access to current information about sustainable marine resource use and methods, and marine farming practices
- Interactive learning and vocational opportunities
- Work experiences opportunities for some students
- Greater interaction with local industry operators
- Improved public understanding of the issues facing the seafood industry, which builds the capacity of students to engage in meaningful debate around resource management issues

Other beneficiaries of the program include:

- The Working on Water Program benefits by cross promotion of programs and referral of students
- The Marine Links education program (incorporating the Recreational Fish Care Volunteer program) – benefits by cross promotion of programs and key messages
- NRM Groups benefit by being able to refer the community to the program

The benefits and beneficiaries are comparable with those stated in the original application. The exceptions are:

- Minimal involvement with youth services organisations. However, involvement with the Tasmanian Department of Education's vocational learning and pathway planning (careers advisory) team has been greater than initially anticipated.
- The flow of benefits to improved understanding of traditional cultural methods is yet to be realised.

Beneficiary statements

Thank you Jennifer for the opportunity afforded by the SIPS program which gave me and my students at Rosny College a valuable follow up trip to the TASSAL fish hatchery. This tied in wonderfully well with our trip to the Marine Studies Centre at Woodbridge. As our program of study will continue next year along a similar theme, incorporating some diverse elements of marine study, I am looking forward to renewed contact early in the year to determine how you might best be able to help us with introductions to other areas.

I believe that the concept of a position such as yours is critical to teachers such as myself in providing valuable leads to industry. In many instances when dealing with an industry, the approach can be to the wrong person, made at the wrong time, or using the wrong approach, any of which can result in failure and waste of valuable time, or worse still, the desire to simply put it into the "too hard basket."

I believe the project has much merit and is sure to grow steadily. One of the biggest problems you will face, I am sure, will be that of "accountability" whereby those funding the scheme will want tangible results. I hope they have the wisdom to understand that this can be extremely difficult to provide and demonstrate, whilst at the same time it is actually very real, but present in a form that evolves and manifests itself in ways and forms that do not read well on a balance sheet.

Good luck with the scheme, and I will be in touch early next year.

Regards, Jim Delany Support Teacher (Special Needs) Rosny College Email: Jim.delany@education.tas.gov.au

The focus on involving schools on educating students about the seafood industry is a very crucial component for future generations and we need to also think about adopting these kinds of projects in Victoria.

In addition to encouraging employment in the seafood industry, awareness about the contribution of the commercial fishing sector is equally important. Ongoing community awareness projects such as the ones in your newsletter will address this.

Well done and I believe that these type of projects will also benefit the Victorian seafood industry. Hopefully we can adopt these projects in future.

Regards
Maria Manias
Executive Officer
VFARM
Victorian Fishery Association into Resource Management

Email: <u>bayfish@bigpond.com</u>

The Tasmanian Seafood Industry Council (TSIC) is the peak body representing the interests of wild capture fishers, marine farmers and seafood processors in Tasmania.

The Council has been very supportive of the Seafood Industry Partnerships in Schools Project.

The project which links class groups from local schools with industry members provides students with a greater appreciation of where our seafood comes from. It also provides an excellent opportunity for students to gain an understanding of the how wild capture fishers and marine farmers work with resource managers and scientists to ensure that their industries provide an economic return to local communities and the state economy and ensure that environmental impacts are minimised.

The project also provides students with an exposure to the range of occupations that are available in the seafood industry.

Yours sincerely

Ned . E. Stimp

Neil Stump Chief Executive

Tasmanian Seafood Industry Council

The Tasmanian Seafood Industry Council actively seeks opportunities to promote and foster the benefits of our Industry to the wider community, and has actively supported the Seafood Industry Partnership in Schools programme as another avenue for this purpose.

The opportunities that have and are being further refined in promoting this initiative, have the full support of our Industry.

Career pathways in both the Wild Capture and Aquaculture Industry in Tasmania in particular, are synonymous with our Island State. By involving our younger generation at an early age in the potential and pathways through this initiative will be of benefit to the Tasmanian economy in the future.

Since the inception of this programme early this year, considerable activity around establishing partnerships between classroom teachers, commercial fishers and marine farmers across Tasmania, has been well received. It involves all participants on a first hand basis to learn about the Seafood Industry.

Along with the "Walking on Water" programme already in place, and now the SIPS programme well underway, we have in place the tools to promote and manage growth and sustainability of the Seafood Industry.

We look forward to this programme developing, and adding value to Industry well into the future.

Lindsay Newman President Tasmanian Seafood Industry Council Since being involved in two partnerships, facilitated by the Seafood Industry Partnerships in Schools Program, I was approached by Woodbridge District High School to partner them in a joint project submission to the NAB Schools First funding. We were successful in obtaining a \$25K grant for the school to develop industry relevant e-learning materials. A number of children have been chosen as leaders for this project and in 2012, will be partnered with and mentored by staff at Tassal Group Ltd. Their interests include diving, farm hand, marine engineer, skippers and the students will be partnered by appropriate staff working in these disciplines. This will give the children a 'real world' view of their chosen areas of interest and will result in work experience opportunities also.

The SIPS program and the Tassal's connection with the Project Officer has provided valuable assistance in accessing school networks and I look forward to the SIPS project ongoing and continuing to develop partnerships with schools into the future.

Fiona Ewing Community Engagement Officer Tassal Group Ltd

Further Development

To further extend the impact of the SIPS Program, it is recommended that:

- 1. The SIPS Program is extended to other Australian states.
- 2. The Current SIPS Pilot in Tasmania is extended for a further 2 years to allow maturation and enhance learning from the partnerships.
- 3. Fact sheets are developed in collaboration with SeaNet local advocacy, research and management bodies.

A series of fact sheets covering issues such as commercial species, wild catch and marine farming techniques, management strategies and sector profiles will inform the community as well as provide specific information to teachers and students, regardless of their ability to form SIPS partnerships.

Fact sheets will ensure that the key messages of the SIPS Program extend its influence.

- 4. Information about careers and career pathways to the seafood industry is made available to career advisors, youth service organisations and teachers and students.
- 5. Formal evaluation of knowledge of the seafood industry is undertaken at the year 1 10 level so that future seafood industry resource development is appropriately targeted to inform the community.

Planned Outcomes

Table 3: Planned outcomes as detailed in the original application and the outcomes achieved under the SIPS Program

achieved under the SIPS Program	
Planned outcomes as detailed in the original application	Outcomes achieved
The educational sector will benefit by:	TI OIDO D
 Provision of further resources to new and existing fisheries educational programs (e.g. sustainable fisheries program run by WMDC) 	The SIPS Program enables teachers to access a new resource which complements existing programs. The program also enables teachers to build learning units around Adopt a Fishing Boat and Adopt a Marine Farm partnerships.
• Improved access to relevant and accurate information about the marine environment and current sustainable commercial fishing and marine farm practices.	Through facilitated access to commercial fishermen and marine farmers, the flow of relevant and accurate information about current sustainable commercial fishing and marine farm practices has increased and is complementary to classroom learning units. Information also comes directly from the industry.
Interactive learning opportunities and broader curricula and vocational training.	Students meet with commercial fishermen and marine farmers in the classroom and at place of work, offering vocational training experiences to students. The SIPS Program addresses a broad range of curricula.
More work experience opportunities for students.	Students have undertaken work experience with commercial fishermen as a direct result of the SIPS Program.
 Youth Arc (youth centre for kids who don't engage in mainstream school system) will increase potential career/mentoring opportunities for kids who identify as wanting to work in the industry. 	This planned outcome has not been achieved.
The Seafood Industry will benefit by:	
Increased exposure of young people to commercial seafood industry as a potential career path (succession planning benefits)	Approximately 500 young people have participated in the SIPS Program, which has included discussions about careers and career pathways into the seafood industry. Work experience opportunities have arisen from the program.
Improved public understanding of industry and practices leading to improved relations with community	Teachers who have participated in the SIPS Program have described how their knowledge of industry practices, and their perceptions of industry have altered as a direct result of their participation in the SIPS Program. This information is passed on to students and the broader teaching community.

Planned outcomes as detailed in the original application continued	Outcomes achieved continued
Capacity building of commercial fishers, particularly in engaging with their local communities	In a number of communities, commercial fishermen have participated in the SIPS program at their local school, either where they have children attending or where they live in close proximity. Those fishermen engage with the school community of teachers and students. Some classes have also visited processing facilities (marine farm and wild catch) in their local community.
Increased positive (and free) media exposure through these 'good news' stories	Good news stories about the SIPS program and its partnership with the seafood industry have been aired on radio both locally and Nationally.
Working on Water Program will benefit by	
•This program will act as a promotional tool both to students and teachers for the Working on Water Program.	The Working on Water program has been promoted through SIPS program networks including email distribution to teachers and publication in the SIPS newsletter.
The Recreational Fishing Sector will benefit by improved access to relevant and accurate information about the marine environment and current sustainable commercial fishing and marine farm practices. This will be particularly useful for the Fishcare Volunteer Schools Program which is run in Tasmania. NRM and environmental groups benefit by	Students involved in Adopt a Fishing Boat partnerships have the opportunity to learn about the marine environment and current sustainable industry practices from commercial fishermen. The SIPS program and Fishcare Volunteer program offer mutual promotion of education resources. The SIPS program has been promoted
having access to up to date resources developed as part of program	through regional NRM publications. Natural Resource Managers have interacted with the SIPS program staff through strategic networking opportunities.
Other benefits will be realised by coastal fishing communities, through better relations between local schools and fishers/aquaculture operators. There are also potential benefits to fisheries managers (long term) by having broader interface to public	Commercial Fishermen and Marine Farmers have developed partnerships in their local area, enabling the opportunity for direct discussion about the importance of industry to Tasmanian communities.

The planned outcomes of the SIPS Program which have been achieved to date are detailed under 'benefits'.

A key output of the SIPS Program is a guide to establishing partnerships between the education sector and the seafood industry. This is presented as 'Welcome Packs' for teachers and commercial fishermen or marine farmers. Documents can be viewed in *Appendix 3*. It should be noted that when this information is disseminated in hard copy format to program participants, it includes published materials from program supporters and complementary education and research programs.

Conclusion

The Seafood Industry Partnerships in School Program pilot facilitated the participation of 18 Tasmanian schools, with an overall total of 24 classes and over 500 students participating across the State, including coastal and inland regions. Seventeen commercial fishermen and marine farmers participated in educational partnerships.

By connecting teachers with seafood industry professionals, and by strengthening the links between industry members with officers from Natural Resource Management groups, the project has enhanced key community stakeholders' understanding of the seafood industry in Tasmania, and thus provided opportunities to increase general community understanding of the complexities of marine utilisation.

The program pilot has contributed to improvement in Tasmania's public understanding of the issues facing the seafood industry, by building the capacity of students participating in the pilot to engage in meaningful debate around issues affecting the seafood industry and the supply of seafood.

Through classroom visits from commercial fishermen, excursions to marine farms and processing facilities, and student interaction with industry professionals, the pilot has increased the exposure of young people to careers in the commercial seafood industry. It is anticipated that longer term succession planning benefits for the industry may be achieved with continuation of the SIPS Program.

A new seafood industry educational resource has been created for Tasmanian schools to complement existing resources as a consequence of the SIPS program. It has offered Tasmanian school students an opportunity to get hands on with the provision of interactive learning and vocational opportunities about the seafood industry, thus contributing to a stimulating, vibrant and interesting learning environment.

The SIPS Program has facilitated work experience opportunities for young people, as well as supported vocational curricula in Tasmanian classrooms. It has benefited the Working on Water and Marine Links education programs through cross promotion and reinforcement of key messages.

The nature of the SIPS Program is to establish personal connections and provide one-on-one involvement between students and seafood industry members. Building these relationships has improved understanding of industry and their practices within the participating school communities in Tasmania. This enhanced understanding may lead to much closer and improved relations between the seafood industry and these communities in the future.

This program, by facilitating in-class visits and encouraging seafood professionals to engage with schools, has contributed significantly to building the capacity of commercial fishers and marine farmers to engage with their local communities in Tasmania.

The SIPS Program has increased opportunities for positive media surrounding the seafood industry by promoting good news stories about industry member involvement with the program.

The program has facilitated communication about current sustainable marine resource use and methods, and marine farming practices, to NRM stakeholders as well as offering access to knowledge with the project officer's assistance. The SIPS project officer, as a conduit between the seafood industry and education sectors, has effectively communicated the range of resources and gaps in knowledge between each sector. This has enabled each sector to both target and tailor specific information about the seafood industry for its audiences.

The SIPS Program successfully developed and trialled a pilot educational program between seafood industry members and school classes from years 1 to 10 in Tasmania. Throughout the pilot, the Steering Committee and project staff kept in mind that a National extension program was also desirable, and therefore consideration throughout the project was given to whether the Tasmanian roll-out would need modification elsewhere. Project materials were created to assist with transfer to other states and the territories.

Appendix 1: Staff

Project Officer: Jennifer Hemer

SeaNet Officer, Tasmania: Anita Paulsen

Former SeaNet Officer, Tasmania: Fiona Ewing

OceanWatch Australia Executive Officer: Lowri Pryce

Appendix 2: Flow Chart for Establishing the SIPS Program Appoint State-based Project Officer Convene State-based Steering Committee including representatives from industry, education and other stakeholders as relevant Project Set Up Phase Tailor existing welcome information for teachers and commercial fishermen/marine farmers to suit State guidelines for: Good Character Check (security clearance) to work in schools Permit information regarding taking catch into schools Other permit or security information Information to alter also includes: Relevant state-based education resources such as web sites and printed materials Relevant state-based commercial fishing industry information Develop communication strategy within work plan, with particular emphasis on target audiences and methods to promote program to target audiences. Identify communication networks. Establishing Relationships Working with SeaNet Officers and Working with relevant education Promote the program to the State-based industry, undertake broader community and seek organisations (e.g. Departments of promotion to commercial opportunities to share 'good news' Education, Marine Discovery fishermen and marine farmers. stories about the SIPS program Centres), undertake promotion to Foster relationships with program and the seafood industry. teachers (Years 1 - 10). champions. Host strategic program launch. Facilitate partnerships between commercial fishermen, marine farmers and class teachers. Facilitation, Support and Evaluation Continue Regular contact with 'partners' to offer support (i.e. educational resources, facilitate communication and provide information as necessary). Undertake evaluation and seek feedback from program participants. Strategie Alignmen Form strategic partnerships and alignments with complementary education program and and Resource Development resource providers to exchange information, extend networks and offer mutual promotion. Develop complementary education resources and pathways for teachers, students, community

members and industry to access information as necessary.

Appendix 3: Seafood Industry Partnerships in Schools Welcome Information for Teachers, Commercial Fishermen and Marine Farmers

Seafood Industry Partnerships in Schools Welcome for Teachers



This document contains information about:

- The Adopt a Fishing Boat and Adopt a Marine Farm programs
 - O What's involved?
- Benefits for teachers and students
- Partnership showcase
- How to get involved
 - o Finding a partner
 - Working with a partner
- Good character checks
- Registering your partnership
 - The benefits
- · How to register
- Supporting learning
- Information about program supporters

The Adopt a Fishing Boat and Adopt a Marine Farm programs

The Seafood Industry Partnerships in Schools (SIPS) project is an exciting new initiative from OceanWatch Australia in partnership with the Tasmanian Seafood Industry Council and Department of Education. The project consists of two program streams: Adopt a Fishing Boat and Adopt a Marine Farm. Under each program, educational partnerships are created between Yr 1- 10 classes and a fisherman or marine farmer.

The project is a collaborative effort between the fishing industry and educators. It enables students to learn that the fishing industry is an important part of their community, and gain an understanding of the steps the industry is taking to improve sustainability and meet a variety of environmental challenges. It also enables older students to understand and experience a range of careers available in the seafood industry.

The Adopt a Fishing Boat and Adopt a Marine Farm programs offer students a first-hand insight into the seafood industry. By partnering with a class, fishermen and marine farmers help to educate students about the marine environment, complexities of marine resource utilisation and the daily life of a commercial fisherman or marine farmer. Partnerships are flexible and individually tailored depending on class age, needs and individual preferences.

What's involved?

School classes (Yrs 1-10) are partnered with a commercial fisherman or marine farmer. Your partnership can be tailored to suit your interests, availability and class

room situation, and also the availability of your partner. The length of the partnership is negotiable between the class teacher and the fisherman/marine farmer.

Fishermen contribute as their capacity allows. Possible partnership activities include:

- Regular at-sea email contact between fisherman and class, providing an update of commercial fishing activities.
- Facebook updates by fishermen
- Class visits by the fisherman, providing face to face contact
- Students ask questions about the day-to-day activities and career of the fisherman or farmer
- Boat or wharf visits by classes or individuals
- Setting up work placements for interested students

Marine farmers may also contribute:

Farm tours, hatchery tours and processing facility tours

A SIPS activity ideas document has been developed to support your partnership and is available to participating teachers and fishermen.

Benefits for Teachers and Students

Teachers have the opportunity to meet and create links with seafood industry representatives. Students can benefit by:

- Contact with people who work in the seafood industry for career inspiration
- Learning more about the importance of the seafood industry to local communities, both economically and socially
- Understanding the roles associated with the seafood industry in their community, from catching and harvesting through to processing, research and marketing
- Learning about how the seafood industry is meeting sustainability and environmental challenges, and future challenges to the industry

Partnership showcase

The first partnership of the Adopt a Fishing Boat program was created between fisherman, Bryan Denny and a Year 4 class at Lauderdale Primary School in the third term of 2009. Bryan is a commercial diver, abalone diver and cray-fisherman. He participated in two face to face sessions with the class and accompanied a class visit to the Woodbridge Marine Discovery Centre (note: this excursion was facilitated by the class teacher and Centre staff; it is not part of the Adopt a Fishing Boat program.)

During Bryan's class visits, children were able to view and handle fishing equipment, including an aluminium dinghy and scuba gear. Students had the opportunity to ask questions about target catch, fishing location, occupational health and safety, accessing marine resources, logistics and career opportunities. In addition to his class visits, students received regular at-sea email updates from Bryan about his fishing activities. Bryan provided the class with a navigational chart, which students have used to map his progress in a science journal. Students have also calculated Bryan's catch (by weight) based on his email reports.

How to get involved

If you would like to create an Adopt a Fishing Boat or Adopt a Marine Farm partnership please register your interest with the SIPS Project Officer (Jennifer@oceanwatch.org.au). The Project Officer can 'match' you with a fisherman or farmer (depending on your interest) and offer support in developing units of work and accessing information about the seafood industry. If you already know a fisherman or marine farmer (such as a parent or acquaintance), registering your intended partnership will ensure that your class has access to a range of educational resources and OH&S recommendations. The SIPS project is a pilot in Tasmania, and you can support this project by providing valuable feedback about the experience and success of the project in your classroom.

Finding a partner

There are three ways to create a partnership:

- The SIPS Project Officer and OceanWatch Australia, acting as a facilitator, can bring interested teachers and fishers or marine farmers together.
- A teacher may initiate a partnership
- A fisherman or marine farmer may initiate a partnership

Important information – if your partnership is initiated by you or a fisherman, it is strongly recommended that you register your partnership as part of the Adopt a Fishing Boat or Adopt a Marine Farm programs. Registration ensures that you receive support from the SIPS Project Officer and information about OH&S, as well as program updates and access to learning resources.

Working with a partner

Once you have been matched with or found a partner, it's important to discuss with your fisherman or farmer your class needs and expectations, and their availability and commitment. You can do this by meeting face to face, via a telephone conversation or email. The SIPS Project Officer is available to facilitate all first-time meetings and any communication thereafter.

You should consider the following:

- How do you want to use your fisherman/marine farmer in the classroom?
- How often you would like contact with your fisherman or marine farmer, and how much time are they prepared to contribute?
- How will you communicate with them (for example, would you like them to send emails or Facebook status updates from sea, and is this possible for them? How regularly can both partners access the internet?)
- What are some project or excursion ideas you can share?
- What is the busy time of year and the down-time for your fisherman or marine farmer?
- What type of data from the fishing boat or farm is available to share with the class?

Good Character Checks and Security

All fishermen who have any type of contact with students are required by State and Federal governments to undergo security screening. The SIPS Project Officer will

work with you and your partner to ensure that all security checks are in place prior to the commencement of your partnership.

All fishermen and marine farmers who participate in the Adopt a Fishing Boat and Adopt a Marine Farm programs receive information about their roles and responsibilities and occupational health and safety.

Registering your partnership

You can register your interest in an Adopt a Fishing Boat or Adopt a Marine Farm partnership by contacting the SIPS Project Officer (jennifer@oceanwatch.org.au or phone 0428 026 356). In addition to providing your contact information, you should think about the following:

- The program partnership you are most interested in
- Your preferences for how your partnership will operate
- Your year level and subject areas most relevant to your students
- Any specific class or student interests

Once you've registered your interest and preferences, you will be partnered with an appropriate fisherman or marine farmer. If there's nobody available, OceanWatch Australia will endeavour to recruit an appropriate a partner for your class. You can also nominate or request your preferred partner.

The benefits

Registering your partnership will provide you with access to:

- Learning support from OceanWatch Australia
- A Teacher Resource Kit which contains information about the seafood industry in Tasmania and appropriate learning programs
- Email updates and newsletters about the Adopt a Fishing Boat and Adopt a
 Marine Farm programs featuring fishermen's profiles, information about the
 seafood industry and the marine environment, partnership showcases and
 ideas for activities
- Occupational health and safety information

Supporting learning

The SIPS Project Officer coordinates partnerships and offers support and resources to fishermen and schools. OceanWatch Australia also provides access to up-to-date and locally relevant information on commercial fisheries, aquaculture and sustainable resource issues.

This is a pilot project, currently available only in Tasmania. Teacher feedback is incorporated into the development of the Adopt a Fishing Boat and Adopt a Marine Farm programs. The Vocational and Applied Learning and Science Curriculums are targeted to provide a structure for teachers to assess learning outcomes for students.

A note about what can and can't be done

The SIPS project is aimed at enhancing learning about the seafood industry and marine environment through real experiences. As much as possible the project encourages fishermen and marine farmers to become a part of the school

community. It also provides students with the opportunity to be a part of the seafood industry through in-school visits, excursions to wharfs, aquaculture and processing facilities and through work placements. However, there are some activities which might require special permissions.

Fishermen work under strict licensing agreements. Fishermen cannot take live catch into the classroom without prior permission from State government or the marine police. If you would like your class to experience fresh seafood, it is recommended that you purchase it from a retailer.

If you want to set up a marine aquarium as part of a marine unit and SIPS partnership, the following link provides protocol for doing this:

http://www.woodbridge.tased.edu.au/mdc/aguariumprotocol.htm

If you have any questions, please contact the SIPS Project Officer (jennifer@oceanwatch.org.au or 0428 026 356).

Contact details

Jennifer Hemer – SIPS Project Officer, OceanWatch Australia jennifer@oceanwatch.org.au or phone 0428 026 356

Information about program supporters

OceanWatch Australia Ltd

OceanWatch Australia Ltd is a national not-for-profit environmental company that works to advance sustainability in the Australian seafood industry. OceanWatch key activities involve:

- enhancing fish habitats and improving water quality in estuaries and coastal environments
- working with industry and local communities to minimise environmental impacts
- introducing industry and communities to sustainable technologies and behaviours.

To achieve these positive outcomes, OceanWatch Australia works in partnership with the Australian seafood industry, federal and state governments, natural resource managers, private enterprise and local communities. www.oceanwatch.org.au

Tasmanian Department of Primary Industries, Parks, Water and Environment

The Department is responsible for the management of Tasmania's sea fisheries and has a strong focus on education and promoting public awareness. Marine farming is also regulated by the Department, and has expanded rapidly in Tasmania in the past decade to become one of Tasmania's major industries.

www.dpipwe.tas.gov.au

Tasmanian Department of Education

Tasmanian Seafood Industry Council

The Tasmanian Seafood Industry Council (TSIC) is the peak body for the whole of the Tasmanian seafood industry. Its primary role is to promote and protect the interests of all those involved in the industry, that is, aquaculture, processing and wild catch.

www.tsic.org.au

Tasmanian Rock Lobster Fishermen's Association

The peak body representing the Tasmanian rock lobster fishery

Tasmanian Commercial Divers Association

Oysters Tasmania

A joint initiative of the Tasmanian Seafood Industry Council, The Tasmanian Shellfish Executive Council and the Tasmanian Oyster Research Council, formed in 2009 as the communication and organisational hub of the Tasmanian oyster industry

www.oysterstasmania.org

Palawa Aboriginal Corporation

Palawa Aboriginal Corporation is a not for profit, community based organisation, established in 1996 and operating as a culturally appropriate education centre.

Natural Resource Management Tasmania – Cradle Coast, North and South regions

www.nrmtas.org

Tasmanian Aquaculture and Fisheries Institute

The Tasmanian Aquaculture and Fisheries Institute (TAFI) support the development and sustainable management of living marine resources. TAFI was established as a joint venture between the Tasmanian Government and the University of Tasmania www.tafi.org.au

Tassal

Tassal has produced Atlantic salmon from Tasmanian waters for over 25 years. It is a leader in producing Atlantic salmon in Australia and employs over 650 people. www.tassal.com.au

"2009/328 Tactical Research Fund: Seafood Industry Partnerships in Schools - Program Pilot, Tasmania" is supported by funding from the FRDC on behalf of the Australian Government



opt a Marine Farm

Seafood Industry Partnerships in Schools Registration of Interest

Teachers and Education Pro	oviders Adopt a Fishing about	
Name		
State		
07. 7		
City/Town		
School or Organisation		
Position		
Year level		
Email address		
Telephone number		
Are you interested in: (please tick)	☐ Adopt a Fishing Boat	
	☐ Adopt a Marine Farm	
	☐ Either program	
Is your school: (please tick)	☐ In or near a capital city	
	☐ Regional centre	
	□ Remote	
	□ Coastal	
	□ Inland	
How did you find out about the SIPS project?		
What would you like to gain from partnership with a fisherman or marine farmer?		
How would a partnership enhance your class learning program?		
How do you envisage a partnership working (for example, class visits, regular electronic		
updates, and/or visits to working boats or farm)?		

What kind of information or resources will help you to develop a seafood or marine environment (or similar) unit of work?		
Seafood Industry Partnerships in Schools is a pilot program, available in Tasmania in 2011. The availability of this project in other States is subject to the level of interest and success in Tasmania and further successful funding.		
Are you aware of any funding opportunities in your State or local area which may be appropriate for the SIPS project? (Please provide as much information as possible)		

Please return this form to:

Jennifer Hemer
Project Officer – Seafood Industry Partnerships in Schools
PO Box 861 Kingston TAS 7051

<u>Jennifer@oceanwatch.org.au</u>
Phone 0428 026 356

Seafood Industry Partnerships in Schools Welcome for Commercial Fishermen and Marine Farmers

This document contains information about:

- The Adopt a Fishing Boat and Adopt a Marine Farm programs
 - o What's involved?
 - Benefits and testimonial
- How to get involved
 - o Finding a partner
 - Working with a partner
- Code of conduct
 - Roles and responsibilities
 - Occupational Health and Safety
 - Legal obligations



The Adopt a Fishing Boat and Adopt a Marine Farm programs

The Seafood Industry Partnerships in Schools (SIPS) project is an exciting new initiative from OceanWatch Australia in partnership with the Tasmanian Seafood Industry Council and Department of Education. The project consists of two program streams: Adopt a Fishing Boat and Adopt a Marine Farm. Under each program, educational partnerships are created between Yr 1- 10 classes and a fisher or marine farmer.

The project is a collaborative effort between the fishing industry and educators. It enables students to learn that the fishing industry is an important part of their community, and gain an understanding of the steps the industry is taking to improve sustainability and meet a variety of environmental challenges. It also enables older students to understand and experience the range of careers available in the seafood industry.

As a participant in this program, you will have the opportunity to offer students a first-hand insight into the seafood industry. By partnering with a class, you will help to educate students about the seafood industry, the marine environment, and the daily life of a commercial fisherman or marine farmer. Partnerships are flexible and individually tailored depending on class age as well as your individual needs and preferences.

What's involved?

Commercial fishermen and marine farmers are partnered with a school class from Year 1-10. Your partnership can be tailored to suit your interests, availability and the class room situation. The length of the partnership is negotiable between you and the class teacher.

You can contribute as your capacity allows. Possible partnership activities include:

- You visit the class, providing face to face contact
- Students ask questions about your day-to-day activities
- Boat or wharf visits by classes or individuals

- You contribute your first-hand knowledge of the seafood industry to the unit of work the teacher is developing
- Regular at-sea email contact between you and the class, providing an update of fishing activities.
- Facebook updates
- Work experience placements you might even find new and enthusiastic staff Marine farmers can contribute in the following ways:
 - Farm tours
 - hatchery tours
 - processing facility tours
 - class visits and activities

The SIPS Project Officer has a more detailed list of possible activities to help you.

Benefits

There are many benefits to becoming involved in an Adopt a Fishing Boat or Adopt a Marine Farm partnership. You might:

- Spark a passion in a young person and find potential employees
- Contribute to children's learning and influence how children utilize information about fishing and seafood
- Have more interaction with your own child's class. This will benefit you, your child and your family.
- Share your experiences with kids and tell them what it's really like to be a fisherman

Testimonial

Bryan Denny, a commercial diver, abalone diver and cray fisherman, formed a partnership with a Year 4 class at Lauderdale Primary School where his son goes to school. Bryan had the following to say about being part of the Adopt a Fishing Boat program:

"Not only was it good fun for me, but it was great for my son. Suddenly he's got a real understanding of what I do for a living and the kids in his class are like 'oh wow, your Dad does THAT'! Fishing's not like other jobs.

The kids were a bit shy to start with, but they must have been talking about it because all of a sudden they started asking me about the size of an abalone, and how much diesel I put in the boat, and how much I earn! The day I took my gear in to show them, I reckon my wetsuit was put on and taken off about 28 times.

I gave the class a chart and then emailed them to tell them where I was fishing. They plotted where I'd gone, how many nautical miles I'd done, and even how much diesel I was using and the cost of it."

How to get involved

If you would like to create an Adopt a Fishing Boat or Adopt a Marine Farm partnership please register your interest with the SIPS Project Officer (Jennifer@oceanwatch.org.au or phone 0428 026 356). The Project Officer can 'match' you with a class and offer support in working with students and teachers. If you already know a teacher (such as the teacher of your child or an acquaintance),

please discuss registering your intended partnership. Registration will ensure that you meet the legal obligations required to work in a school, and that the class teacher has access to a range of educational resources about the seafood industry. The SIPS project is a pilot in Tasmania, and you can support this project by providing valuable feedback about your experience.

Finding a partner

There are three ways to create a partnership:

- 1. The SIPS Project Officer and OceanWatch Australia, acting as a facilitator, can bring interested fishermen or marine farmers and teachers together.
- 2. A teacher may initiate a partnership
- 3. A fisherman or marine farmer may initiate a partnership

Working with a partner

Once you have been matched with or found a partner, it's important to discuss with your availability and commitment. You can do this by meeting face to face, via a telephone conversation or email. The SIPS Project Officer is available to facilitate all first-time meetings and any communication thereafter.

You should consider the following:

- How often you would like contact with your class, and how much time are you prepared to contribute?
- How will you communicate with your class (for example, would you like to send emails or Facebook status updates from sea?)
- What is your busy time of year and down-time?
- What kind of information can you share with your class (for example, information about your catch, costs or fishing location)? Can you provide any 'hands-on' experiences for your class?

Seafood Industry Partnerships in Schools Code of Conduct for Fishermen and Marine Farmers



By becoming involved in an Adopt a Fishing Boat or Adopt a AUSTRALIA Marine Farm partnership you will share your expertise and experience as a commercial fisherman or marine farmer to help educate young people about the seafood industry. The following information has been prepared as code of conduct for fishermen and farmers involved in Adopt a Fishing Boat or Adopt a Marine Farm partnerships.

Roles and Responsibilities

Your role

Your role in an Adopt a Fishing Boat or Adopt a Marine Farm partnership is to act as a representative and advocate of the seafood industry. You will share your experience and knowledge to help educate young people about commercial fishing and marine farming, the marine environment and your job.

You could try to tell students that the seafood industry:

- 1. Wants to be sustainable now and in the future;
- 2. Spreads economic benefits across the community; and
- 3. Provides career opportunities

Your responsibilities

- Be realistic about how much time and effort you can commit, and honour your commitment;
- Always act appropriately around students;
- Complete and submit a good character check form and make sure you have received clearance from the Department of Education before you enter the classroom or come into contact with students:
- Observe OH&S requirements;
- Remember that your role is to help educate students. You are not expected
 to manage behaviour and you should never be left alone with students unless
 a specific arrangement has been made with the school (for example, work
 experience);
- If you have any concerns about your Adopt a Fishing Boat or Adopt a Marine Farm partnership, you should contact the SIPS Project Officer.

Occupational health and safety

The Department of Education and individual schools have strict OH&S guidelines for in-school activities and out of school excursions. An OH&S document has also been prepared for the Adopt a Fishing Boat and Adopt a Marine Farm programs. This document will be made available to you when you register to be a part of these programs. You should familiarise yourself with the contents of this document and discuss it with your partner teacher prior to interacting with students. There are two key points to remember:

 You need to complete and submit a good character check form and make sure you have received clearance from the Department of Education before you enter the classroom or come into contact with students; 2. If you accompany your class on excursion (for example, to a wharf, processing facility, marine farm or hatchery), or if groups of students will be boarding a fishing boat with you, a representative of the school must first visit the site to detail any specific OH&S requirements.

The SIPS Project Officer is available to assist you with any OH&S requirements.

Legal obligations

Good character check

A good character check form MUST be completed before you participate in classroom activities or come into contact with students. You can get a copy of the form from the SIPS Project Officer, the school you will be working with or download it at:

http://www.education.tas.gov.au/dept/careers/employment/pre-requisites/goodcharacter/

Insurance

Prior to letting students board your boat or enter your marine farm or processing facility, you should check your business or employers insurance. Look for details about numbers, safety equipment and any other restrictions which might be relevant, and discuss these with your partner teacher prior to receiving students.

Insurance for your fishing equipment is available through the SIPS project to support work experience students. The Department of Education also provides personal insurance for students participating in work experience programs. If you are willing to take students on board your boat, please let the SIPS Project Officer know so that insurance can be arranged.

Permits

You cannot take live catch into a classroom without permission from DPIPWE. If you have any questions about taking live catch into the classroom, contact DPIPWE or the marine police to find out the correct procedure. The DPIPWE is aware of and supports the aims of the SIPS project.

If the class teacher wants to set up a marine aquarium as part of their classroom activities, they must apply for a permit from DPIPWE in person. You should not collect anything for the aquarium until a permit has been issued and you have read the conditions attached to the permit. The SIPS Project Officer can provide you and the class teacher with further information.

"2009/328 Tactical Research Fund: Seafood Industry Partnerships in Schools - Program Pilot, Tasmania" is supported by funding from the FRDC on behalf of the Australian Government

Australian Government
Fisheries Research and
Development Corporation

Seafood Industry Partnerships in Schools

Registration of Interest Fishermen and Marine Farmers



Name	
State	
City/Town	
Company (if relevant)	
Job title	
Email address	
Telephone number	
Are you interested in: (please tick)	☐ Adopt a Fishing Boat
,	☐ Adopt a Marine Farm
Your local school?	
Do you have children attending this school?	
Are you willing to form a partnership in a school which is not your local school if necessary?	
Do you (or does the owner) have public liability insurance for your fishing vessel? (Please note, this question is for information only)	
How did you find out about the SIPS project?	
How do you envisage a partnership working (for example, class visits, regular electronic updates, and/or visits to working boats or farm)?	
Is there anything in particular you would like to get out of a class partnership?	

Please return this form to: Jennifer Hemer, Project Officer – Seafood Industry
Partnerships in Schools PO Box 861 Kingston Tas 7051

<u>Jennifer@oceanwatch.org.au</u> Ph 0428 026 356

Activity ideas for classroom partnerships



1. Classroom visit

Year level: 1 – 10

Curriculum focus: Society and History; Vocational and Applied Learning

Decide on a day and time which is convenient for all. Think about how long the visit should last, and the focus. It is best to discuss any specific details or information about the classroom visit before the activity begins.

For Teachers:

Prior to a classroom visit lead a discussion to find out what students already know about commercial fishing and/or aquaculture, and then create a list of questions to ask your partner fisherman or marine farmer during their visit. Questions to encourage discussion:

- What is commercial fishing (or aquaculture)?
- How is commercial fishing different to recreational fishing (or how is wild fishing different to aquaculture)?
- Do you know any commercial fishermen? How many?
- Who owns the fish before they are caught?
- Describe how a fish that is caught in the sea gets to a shop or supermarket.
- What are five things commercial fishermen catch in Tasmania?
- How do the fishermen know where to find the fish?
- What do commercial fishermen use to catch fish?
- What do you think has the most impact on fish in the ocean pollution, overfishing, changes in ocean temperature, loss of habitat (you might like to rank)?
- What costs does a commercial fisherman have before leaving the wharf?
- What is the Government's role in commercial fishing?
- Would you like to be a fisherman?

For Fishermen:

In order to prepare yourself for the questions you might be asked during a classroom visit, think about your day to day work and the process of catching fish from the sea through to getting it into shops and onto the table.

Examples of questions you might be asked by students:

General questions about your work and life

- How long have you been a fisherman?
- Why did you become a fisherman?
- What days and hours do you work?
- What's it like?
- How big is the boat you work on?

Questions specific to fishing

- What do you catch and how do you catch it?
- How much do you catch (in a day or season, by weight and numbers)?
- How much do you catch in a single net/trap/dive?
- How long do you leave equipment in the sea for?
- What sort of weather do you fish in?
- What happens to the fish once you've caught them?
- What do you use for bait?
- Do you catch anything other than what you're fishing for?
- How much do you sell fish for and who buys it?

Questions about safety, regulations, licensing and management

- How do you report how much you catch and when you go fishing?
- What sort of safety equipment do you carry on board?
- Who makes the rules about fishing and what information is used to make decisions?

Other ideas for a classroom visit:

- Fishermen can take along photos or video footage of themselves fishing
- Ask the SIPS Project Officer about hand-out information or 'freebies' for fishermen to give away to students
- Instead of a general discussion, give the classroom visit a focus. The class might like to do up a 'time table' of a day in the life of a fisherman and ask the fisherman what he/she does at different times of the day.

Follow up ideas:

- Students create a PowerPoint presentation of an aspect of fishing, for example, the life cycle of a commercial species, commercial fishing or aquaculture techniques, or a day in the life of a fisherman or marine farmer.
- Students write an article about commercial fishing and/or what it's like to be a fisherman, based on what they have learnt during the class visit. Publish articles with accompanying art work in the school newsletter or a local community newspaper.

2. Gear demonstration

Year level: 1 – 10

Curriculum focus: Vocational and Applied Learning

Class partner fishermen and marine farmers take along their fishing gear to demonstrate to students. This activity is extremely sensory because for some students this may be their first look at fishing equipment. They will notice the smell of the gear and its saltiness. Teachers and fishermen should first discuss whether students are allowed to handle equipment. Decide whether the activity should have a focus, for example, fishing equipment, safety equipment or marine technology. Fishermen and farmers can explain the use of different pieces of equipment either to the whole class or small groups. Allow time for questions and discussion, and an opportunity to sketch, touch and feel (if appropriate).

Follow up ideas:

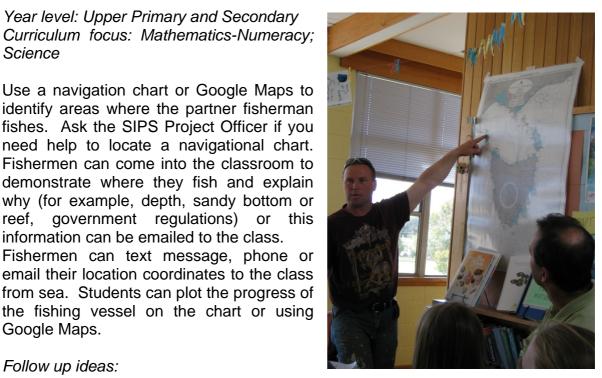
- Research a fishery and the equipment used in that fishery. Create a poster.
- Create art such as models and sketches of the equipment and make a display.
- Research how fishing equipment and technology has changed over time.



3. Navigation

Year level: Upper Primary and Secondary Curriculum focus: Mathematics-Numeracy; Science

Use a navigation chart or Google Maps to identify areas where the partner fisherman fishes. Ask the SIPS Project Officer if you need help to locate a navigational chart. Fishermen can come into the classroom to demonstrate where they fish and explain why (for example, depth, sandy bottom or reef, government regulations) or this information can be emailed to the class. Fishermen can text message, phone or email their location coordinates to the class from sea. Students can plot the progress of



Follow up ideas:

Google Maps.

- Find out the cost of diesel and engine capacity of the fishing vessel. Calculate some of the costs associated with a fishing trip.
- Research the distribution of different fish habitats around Tasmania. Find out about marine protected areas and where fishing is and is not allowed. Mark these areas on a map.

4. Catch data

Year level: Upper Primary and Secondary

Curriculum focus: Mathematics-Numeracy; Science

The fisherman sends information about catch to the class via phone, email or text message. Catch information might include fish type, weight and/or numbers, average size and information about how the fish were caught. Teachers and fishermen should decide the information to be communicated back to the class prior to commencing this activity (this can be done in consultation with students). Students can fill out a daily/weekly log book based on the information provided by the fisherman. The class can calculate total catch and other parameters. Catch information can be cross-referenced with fishing location.

Marine farmers can pass information to the class about annual production and the life cycle of the species they farm.

Follow up ideas:

- Primary classes can use the information provided by the class fisherman for numerical problem solving.
- Research the information fisheries scientists and managers require to assess the health of fish stocks and make management decisions.
- Investigate market prices (for example, per kilo of fish) locally and for exported fish, and the costs associated with commercial fishing.
- Invite the class fisherman or marine farmer into the classroom to discuss catch rates, gear effectiveness, market prices and expenses, and sustainability.

5. Virtual fishing

Year level: 1 – 10

Curriculum focus: Vocational and Applied Learning; Mathematics-Numeracy

The fisherman or marine farmer 'dedicates' a piece of fishing gear (for example, a Cray pot or pond) to the class and reports back to the class on where the gear is deployed and how much it catches or produces during a fishing trip or over a period of time. Reports might be daily, weekly or at the end of a trip or season.

Follow up ideas:

- Students build models of fishing gear such as nets, pots or traps. Label different parts and describe the function.
- Research quota systems for different fisheries and find out if and how quotas apply to the class equipment.

6. Current issues

Year level: Upper Primary and Secondary Curriculum focus: Society and History

Students monitor the media for issues relating to commercial fishing and marine farming. News articles can be collected and collated in a class scrap book or individual work books. As issues arise, hold class discussions. Fishermen and marine farmers could visit the class to discuss the issues from their perspective. The SIPS Project Officer has a collection of recent seafood industry related media clips as well as short videos about fishing which have been created by OceanWatch Australia.

Follow up ideas:

- Hold a class debate about a current issue in commercial fishing.
- Create a 'community map' to map the economic and social flow effects of commercial fishing through communities. The class map could represent the jobs created around the commercial fishing industry (including harvesting, processing, marketing, transporting, assessment and management) as well as representing the view points of various sectors of the community.

7. Fish feast

Year level: 1 - 10

Curriculum focus: Vocational and Applied Learning; Health and Wellbeing

Hold a class BBQ or have small groups prepare dishes using different types of seafood. Invite parents along to join in the feast. Offer tastes of the different kinds of seafood.

For Fishermen:

Describe how each of the different types of seafood is caught and sold. Students might ask you questions about your own seafood preferences.

For Teachers:

Commercial fishermen operate under strict licenses and cannot share their catch with the class – all seafood must be purchased from or donated by a retailer. Be aware of any allergies before commencing this activity.

Follow up ideas:

- Research the nutritional benefits of different types of seafood. Create a PowerPoint presentation or poster.
- Find out what types of seafood were harvested locally by Aboriginal peoples, and how.

8. Measure and map a fishing vessel

Year level: 1 - 6

Curriculum focus: Mathematics-Numeracy

For Fishermen:

Provide the class with the dimensions of the fishing vessel you work on. Include length and width. You might also like to include the dimensions of different parts of the boat or pieces of equipment.

For Teachers:

Use the dimensions provided to draw the outline of the boat on the school basketball court or car park using chalk. Have students lie down along the length and width of the 'boat' to get a feeling for the size of the vessel.

Fishermen might like to visit the school to participate in this activity and describe different parts of the boat to students, and talk about what it's like to work on board a fishing vessel.

Follow up ideas:

 Organise an excursion to a wharf to take a look at fishing vessels. If possible, arrange a meeting between fisherman and class. The SIPS Project Officer can provide you with risk assessment information.

9. Weather report

Year level: 1 - 10

Curriculum focus: Science

For Teachers:

Find out from your partner fisherman what weather they can and cannot go to sea in, and what information they need to make decisions about fishing. You can do this either by inviting the fisherman into the classroom to discuss the weather, or by telephone conversation or email.

For Fishermen:

Provide the class or teacher with the information you need to know about the weather. You can do this as part of a class discussion, by telephone conversation or email. Tell the class how you find out about weather forecasts when you are at sea. Be prepared to relate some of your weather stories and experiences to the class.

Follow up ideas:

- Research what happens below the surface of the water during extreme weather events. Find out the survival strategies of different marine species.
- Read some fishing folklore tales. Find references to the weather.

10. Fishing as a career

Year level: Upper Primary and Secondary

Curriculum focus: Vocational and Applied Learning; Society and History

Students ask the class fisherman or marine farmer questions about their career choices and experiences. The school careers advisor could be present during this discussion to tell students about the steps they could take to build a career in the seafood industry.

Follow up ideas:

- Invite people who work in jobs associated with the seafood industry to come and speak with the class. Fishermen and teachers might know friends who work in these jobs, or parents in the class might help. Contact the SIPS Project Officer if you need assistance.
- If there is a student in the class who shows particular interest in fishing or aquaculture, arrange a work experience placement within the seafood industry. The SIPS Project Officer may be able to help arrange a placement.