



Australian Government

**Fisheries Research and
Development Corporation**

Finland Study Tour 2010

Fraser Perry

2009/325

FINAL REPORT (DEVELOPMENT AWARD)

AWARD CODE and TITLE

2009/325 Finland Study Tour 2010

AWARD RECIPIENT: Fraser Perry

ADDRESS: 12 Napier St Malabar NSW 2036

HOST ORGANISATION: Recreational Fishing Alliance of New South Wales

DATE: 17/08/2011

ACTIVITY UNDERTAKEN

In 2010, Fraser Perry travelled to Finland as a Rotary exchange student, where he examined the Finnish fisheries management system. The year in Finland also provided Fraser Perry with many opportunities for personal development as a future leader.

OUTCOMES ACHIEVED TO DATE

In 2010, Fraser travelled to Finland. He investigated the details of the Finnish fisheries management system and the strong influence of the European Union. In addition, Fraser travelled and fished extensively in Finland. Fraser also learnt Finnish, studied in a Finnish high school and University and gave many presentations to school classes and Rotary clubs, activities which contributed towards his personal development.

Non-technical summary

In 2010, Fraser Perry, an identified future leader, travelled to Finland on a student exchange to further his personal development and study the fishing industry in Finland. Mr Perry, travelled extensively through Finland and the neighbouring countries, interacted with a variety of people and learnt to speak Finnish fluently; experiences which all contributed towards his development as leader. In addition, Mr Perry liaised with fishery managers, attended fishing expos and workshops, visited multiple tackle factories, and fished in a variety of different waters, which together gave him an understanding of fisheries management in Finland.

Acknowledgments

This project has been co-funded by the Recreational Fishing Alliance of NSW, who have provided financial support and the use of a laptop and camera. Rotary have facilitated the exchange year and I would like to thank them greatly for the opportunity.

Need

Finland has one of the highest recreational fishing participation rates in the world. It also has a sophisticated fisheries management and licensing schemes. This project will contribute to the development of the applicant by providing extensive exposure to one of the world's most advanced recreational fisheries management systems. This will provide insights into the social, economic and environmental contribution fishing in Finland that may lead to improvements to fishing in Australia. The applicant will be better placed to participate in and contribute to the better management of fisheries.

Background

In 2009, Fraser participated in the Recreational Fishing Alliance of NSW's Future Leaders program. Following from the program, Fraser was mentored by experienced fishing advocates and fishery managers. Later in the year, Fraser was presented with the opportunity to travel to Finland as an exchange student for a whole year. Since Finland had a unique well managed fishery and the exchange student experience incorporates extensive personal development, Fraser and his mentors developed this project, which would provide insight into a unique fishery, and allow Fraser to have experiences and develop skills that would assist him in the future as a leader in fishing advocacy.

Objectives

- To travel to Finland and enhance the personal development of the applicant.
- To study the management of fisheries in fresh and salt water.
- To study the fishing licensing requirements and implementation.
- To study the fisheries compliance and education systems.
- To study the promotion and enhancement of recreational fishing.
- To investigate the interaction between conservationists and fishers and the promotion of responsible fishing.
- To report the above findings to recreational fishing groups and fisheries managers.

This project aims to provide the applicant with the tools to better contribute to the improvement of fishing in Australia.

Methods

During 2010 I travelled to Finland, participating in a Rotary Youth Exchange Program. Through my involvement in the program, I studied part time in a Finnish upper academic school and also in Helsinki University.

Whilst in Finland, I visited and attended a range of places and events, including tackle expos, tackle factories, fishing workshops and fishing competitions. I also visited a diverse range of fisheries where I engaged with a variety of recreational fishers, fishery managers and industry professionals.

In between these activities, I travelled extensively within Finland and to the neighbouring countries.

Results

Management of fisheries in fresh and salt water

Fisheries in Finland

A particular characteristic of the Finnish fisheries is created by the arctic climatic conditions. Fishing waters, and especially coastal waters, are to varying extents covered by ice for part of the year. This means that ice fishing using nets, hooks and traps is common in the winter season while the main fishing period lies between April and November. There are around sixty species of fish indigenous to Finland, of which approximately twenty are fished, including commercial and main recreational species, and one species of crayfish. In comparison to Australia, a higher proportion of species are prized and targeted. Recreational fishing is also important, with approximately forty per cent of the population fishing at least once a year (see statistics attached). Ninety per cent of the inland catch is taken recreationally, as is approximately half of the marine catch other than Baltic herring. Recreational fishing is a significant sector in Finland.

General aims and objectives

The Finnish government's fisheries management objectives are detailed in the Fishing Act 286/1982 (including 154/2003 amendments):

- To maintain maximum permanent productivity of the waters
- To ensure that the fish stocks are exploited rationally and with due attention to fishery viewpoints
- To ensure that the fish stocks are managed and expanded
- To avoid measures that might harmfully or adversely affect nature or the balance of nature

Finish fisheries policy and management come under the umbrella of the Common Fisheries Policy (CFP) of the EU. The primary aim of the CFP's fisheries management policy is to ensure exploitation of living aquatic resources that provides sustainable economic, environmental and social conditions. To this end, the precautionary principle is to be applied, and management should be moving towards adoption of an ecosystem-based approach. Management is based on regulating the quantities of fish caught, through a system of Total Allowable Catches (TACs), complemented by technical conservation measures.

Apart from the resource management policy, the CFP is comprised of three key strands: structural policy, market policy and international agreements. Structural policy is aimed at improving the balance between catching capacity and available resources by limiting fishing effort, and to support diversification within and outside the sector.

The CFP dictates the majority of fisheries management in Finland.

Management tools

Under the CFP, management is based on regulating the quantities of fish caught, through a system of Total Allowable Catches (TACs), complemented by technical conservation measures. Technical measures include minimum mesh size, minimum fish size, area and temporal closures. Fleet capacity reference levels and rules are also used to manage fishing capacity. These are the same management tools in most other countries including Australia.

Total Allowable Catches

Total Allowable Catches (TACs) are a key element of fisheries management in Finland. For a number of key commercial stocks, the EU Member States agree on TACs each December. TACs place an overall limit on the weight of fish that fishermen may land. TAC proposals are drawn up by the European Commission, reflecting scientific advice from the International Council for the Exploration of the Seas (ICES) on appropriate levels of catches if stocks are to be maintained. Once the TACs are agreed they are divided between Member States according to a system of 'relative stability' under which each receives a national quota for individual stocks. Five stocks of importance to Finland are subject to TACs: herring, salmon, sprat, cod and plaice.

The strong scientific grounding for setting these TACs ensures long term sustainability of the stocks.

Technical conservation measures

Technical conservation measures provide a third key management tool. The measures include setting minimum landing sizes for different species; requiring the use of specific mesh sizes; in some circumstances, obliging the use of by catch reduction devices; putting restrictions on what fishing gear can be used; and, closing some areas to certain types of fishing, permanently or seasonally. Although most measures are designed in order to protect juvenile or spawning stocks, some are also aimed at reducing impacts on non-target species and habitats. Most measures are adopted by the EU, with some supplementary measures adopted by Finland, particularly concerning territorial waters.

Adjustment of fishing capacity

Fishing fleet overcapacity in the EU has been estimated to be as high as 60 per cent in some fisheries, and despite previous fleet policy programmes aimed at bringing capacity down, the issue has yet to be adequately addressed. There is a EU requirement to balance fleets with available resources, and responsibility for meeting this objective rests with the EU Member States.

Fleet adjustment is based on national reference levels that limit overall capacity, in combination with effort limitations introduced for some regions and under recovery plans, restrictions in aid for vessels modernisation, and economic incentives to decommission vessels. When capacity is removed with public aid, the reference level is reduced accordingly. Member States choosing to provide aid for new-builds will also see their reference level reduced by a one-off three per cent. There is an entry/exit ratio for the introduction of new vessels of one to one, with exits supported by public aid not being allowed to be replaced. For new vessels over 100 GT built with public aid, the entry/exit ratio is 1 to 1.35 to counter so-called technological creep. There is some scope to increase tonnage levels if this relates to modernisation above the main deck, as long as this does not increase the catching ability of the vessel.

This is a very innovative way of managing commercial fishing in the long term.

Management plans

According to the CFP, EU recovery plans should be developed for already overfished stocks and management plans for other stocks. Limitation of fishing effort within the plans is subject to case-by-case scrutiny. Plans are also required to take interactions between different stocks and fisheries into account, and may include targets related to other species or the wider marine environment. Plans are supposed to include so-called pre-determined harvesting rules, as a means of introducing a longer term perspectives within fisheries management.

Stock enhancement

In addition to management restrictions, extensive fish stocking operations are employed with the rehabilitation of fishing grounds. A significant number of salmon or vendace fry are released in inland waters to ensure the continuation of fishing for stocks negatively affected by dams built during the post-war reconstruction period. Even today, hydro-electric power stations must offset their ecological damage, through fish stocking amongst other methods.

Fisheries institutions

National regulation of marine and freshwater fisheries is the responsibility of the Ministry of Agriculture and Forestry (MMM), Department of Fish and Game. Regionally, responsibility lies with the eleven Fisheries Sections under Centres for Employment and Economic Development.

Under the Ministry, the Department of Fisheries and Game directs the administration of fisheries, as well as game and reindeer husbandry. The department has two units specific to fisheries; one of them deals with recreational fishing and the other with commercial fishing.

By having a single department manage fisheries, Finland has a cohesive management approach that encompasses all stakeholders. For instance, farmers, recreational anglers and the environment are all factored into management decisions, which often results in fair and balanced outcomes.

Regional Employment and Economic Development Centres manage structural aids. They also maintain registers and provide advice on issues concerning water rights, appropriations for fisheries, regional planning and the management of watercourses. Although the services are mainly aimed at professional fishermen, recreational fishermen can also use them.

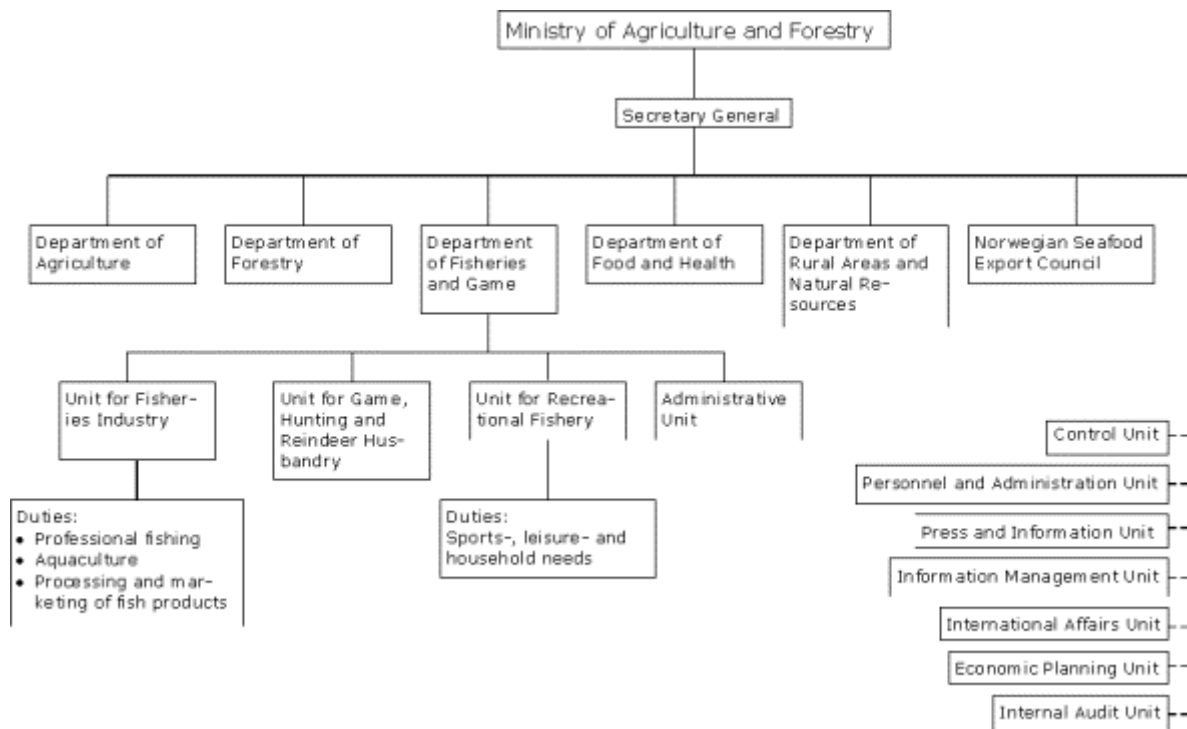
The Federation of Fisheries Associations (*Kalatalouden Keskusliitto*) represent water owners and all fishermen, both recreational and commercial.

Suomen Ammattikalastaja Liitto (SAKL) represents professional fishermen. The representation of the fish traders (*Suomen Kalakauppiaaliitto*) works in close co-operation with SAKL.

The Finnish Fish Farmer's Association (*Suomen Kalankasvattajaliitto*) is an industry association founded in 1964 representing all aquaculture activities in Finland. The Association is a member of the Federation of European Aquaculture Producers (FEAP).

The Finnish Federation of Recreation Fishers (*Suomen vapaa-ajan kalastajien Keskusjärjestö*) represent the interests of recreational fishermen in Finland.

Organization chart of the Ministry of Agriculture and Forestry



Role of the public and private sector

Like most Scandinavian fisheries, aquaculture, fish processing and trade are private enterprises. Property rights to fisheries in freshwater and near shore waters are clearly defined and delimited in Finland. Management and research is public and financed predominately through national funds, some of which are based on revenue from fishing licenses. Structural and market- oriented activities are planned through and financed jointly under the Common Fisheries Policy (CFP) of the European Union, but implemented, executed and monitored by the National Fisheries Authorities.

General legal framework

Finnish fisheries systems and policies sit within the context of both regional and international fisheries agreements. The overarching international framework is provided by the UN Convention on the Law of the Sea (1982), FAO Conference Resolution 15/93 and the UN agreement of 1995 (Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks). While the FAO Code of Conduct for Responsible Fisheries 4/95 has no legal force it does have political implications for the management systems.

The long-term strategy for development in the Baltic region generally is laid down internationally in the Baltic 21 agreement. The Baltic 21 agreement was adopted by eleven Baltic states and the European Commission in 1998. The primary objective is to implement sustainable development in a range of areas. In the fisheries sector, the objectives are in the form of long-term strategies for major fish stocks (cod, salmon, herring and sprat), restoration of habitats important to fish and fisheries in inland waters and achieving sustainable aquaculture.

As noted, Finnish fisheries policy and management come under the umbrella of the Common Fisheries Policy (CFP) of the EU. Key EU legislation includes:

- Council Regulation (EC) No 2371/2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy
- Council Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms (as amended)
- Council Regulation (EC) No 2369/2002 amending Regulation (EC) No 2792/1999 laying down the detailed rules and arrangements regarding Community structural assistance in the fisheries sector

The main national legislation is that of the Fishing Act 286/1982, including the 154/2003 amendments.

Fishery management systems

National and Regional Management

Fisheries management in Finland comes under the European Union Common Fisheries Policy (CFP). However, within the framework there are nationally adopted measures, For instance, while salmon quotas are set at an EU level, Member States determine where and when salmon can be caught. While the CFP applies most directly to marine fisheries, structural grants are given to the lake regions.

The system of property rights, and hence management, in Finnish waters varies by region and water type. Coastal waters (500 meters from the two meter depth line) and lakes are generally privately owned in connection with the attached or surrounding land. Offshore waters and nature reserves are state owned and managed. Most of the fishing activity takes place in the privately owned water areas. In general private owners have the responsibility for management in their own water under the 1982 Fisheries Act. Although the waters around the west coast in the Gulf of Bothnia and parts of the Archipelago Sea in south-western Finland are privately owned, they are mostly collectively administered by fishing associations at the village level.

Fishing activity in Finland's privately owned waters is managed at three levels:

- Locally (fisheries associations);
- Intermediate level (fisheries regions); and
- National (Ministry of Agriculture and Forestry and Employment and Economic Development Centres).

Fisheries associations

Most of the Finnish coastal and inland waters are privately owned. Ownership is connected to the property rights of the adjoining land. A governance system for fisheries in private waters has been in place since 1902 and owners of fishing rights are responsible for management of the water and fish under the Fisheries Act 286/1982. Coastal and inland areas are managed by a multi-level decision making process. The interests of land, and therefore water owners, are generally represented in fisheries associations. Under the Fisheries Act 1951 all landowners are obliged to form such an association. These associations have the power to collect revenue from licences, which is subsequently invested in fish stock maintenance and other management practices.

Private water areas are often fragmented and split between many parties, including non-local owners of summerhouses. Non-local summerhouse-owners are shareholders in these statutory fishery associations, but in practice generally participate little in meetings and decision-making. Thus coastal and inland areas are privately owned but collectively managed by statutory fisheries associations.

Fisheries regions

Regardless of their ownership, all privately owned waters are divided into Fisheries Regions, municipal division or division under governmental administrations (see below). In 2000 there were 225 Fisheries Regions. They were established during the 1980s and added to the system of local private water management as an additional level of management. Fisheries Regions present a wider forum for discussion between water owners and fishermen than fisheries associations do. Fishery Region's boards are comprised mainly of representatives of the statutory fisheries associations, and also recreational and commercial fishermen. The majority of people attending meetings have commercial interests, as fishermen are heavily dependent on access to private waters. Typical management measures implemented by Fisheries Regions include minimum mesh and fish landing sizes and area and temporal closures. Fishing prohibitions are particularly common in the proximity of river mouths. Temporal closures include a ban on salmon fishing in the Gulf of Bothnia in late spring and early summer in order to protect spawning migrations.

Authorities

Authorities are divided into two levels: fishery districts (part of the Employment and Economic Development Centres) and the Ministry of Agriculture and Forestry. Employment and Economic Development Centres are regional administrative bodies responsible for, among other things, the administration and supervision of EU and national funds and the local implementation of some fisheries policies. The Centres issue licences for commercial salmon fishing with stationary gear (fykes and traps) and advise on issues concerning water rights, appropriations for fisheries and the management of watercourses. The Employment and Economic Development Centres report to three Ministries, the Ministry of Trade and Industry, the Ministry of Agriculture and Forestry, and the Ministry of Labour.

In 2004 there were 11 fishery districts representing state administration at a regional level. The fishery districts are under the guidance of the Ministry of Agriculture and Forestry. The Fishery Act requires stakeholders to devise a management plan for the fisheries in their area of water, including aspects on utilization, conservation and restoration.

International cooperation in the region

There is extensive international co-operation in the region in fisheries and environmental regulation in the marine environment. Finland is a member of the EU, the North Sea Council of Ministers, The Nordic Council, the International Council for the Exploration of the Seas (ICES), the European Inland Fisheries Advisory Commission (EIFAC), and a pro-active member of UN-organisations. Finland is also a contracting party to the Baltic Marine Environment Protection Commission (Helsinki Commission), HELCOM, and the 1992 OSPAR Convention for the Protection of the Marine Environment in the North-East Atlantic.

Until 2004 the fisheries of the Baltic were managed through the International Baltic Sea Fisheries Commission (IBSFC), where TACs and technical measures were agreed on by all parties. Because the EU has exclusive competence over fisheries management, it has negotiated on behalf of Finland since it joined the EU. In 2004, with enlargement to 25 Member States, the Russian Federation was the only non-EU country bordering the Baltic. It has therefore been replaced by bi-lateral agreements between Russia and the EU since 2004.

Government financial assistance

Since Finland joined the EU, the fisheries sector has received economic assistance under the EU Financial Instrument for Fisheries Guidance (FIFG). National and EU contributions that were associated with the Common Fisheries Policy and Finland's fishery policies, including the Åland County, amounted to US\$ 19,110,765 in 2001. Approximately three quarters of the total contribution originated from national financial transfers.

Future trends in industry

Because most of fishing occurs in privately owned areas, commercial fishermen are largely dependent on the fishing permits granted to them by the fishery associations and individual owners. The fragmentation of the water areas and the degree of dependency can pose a hindrance in areas such as the Southwest Archipelago, where there are numerous owners and many summerhouses. The social and economic developments, especially the urbanization process, have affected the fisheries system in a way such that land ownership has become more fragmented and non-localized. The small size and scattered structure of privately owned waters, and inequity have triggered demands for reorganization of the fisheries management system.

In recent years there has been a large increase in the size of the grey seal population in Finnish waters. This has led to increased attention given to improving net strength. However, the problem of damaged nets and reduced quality and quantity of catches, due to interference by grey seals still persists.

Local supply and demand of fish is primarily accounted for by fish caught by national fishermen. A very large share of local consumption stems from household fisheries and part-time fishermen. The fishing sector of Finland is geographically very localised. With small-scale processing plants, the sector is not presently geared to large-scale imports of raw material for further processing and re-export. Nonetheless, the national market depends and is likely to remain dependent on imported raw material for further processing.

One of the main issues facing the Finnish fleet is restructuring and downsizing of capacity. There has been an initial reduction in salmon drift net capacity; this is expected to extend to the herring fishery. At the same time, the small-scale fishing fleet is supported and has developed. Restructuring is likely to lead to a more diversified fleet, with vessels moving towards chartered tourist excursions for example.

Any future development of the aquaculture industry is likely to be dependent on diversifying away from rainbow trout. On a 25-year projection of the development it is expected that the national demand for fish for consumption will continue to be high and mostly covered by local fish sources. The processing sector may develop into larger units, capable of utilising the market opportunities of the Common Market through higher imports of raw material from especially Norway.

Licensing requirements and implementation

Types of licenses

There are two types of recreational fishing licences in Finland; the fisheries management fee and the provincial lure fishing fee. The degree to which a person wishing to fish is liable to payment depends on the type of fishing, their age and the area. A fisheries management fee must be paid prior to fishing by everyone between 18 and 64 years old who wishes to participate in fishing activities other

than bait fishing or ice-fishing, which are subject to the public right of access. The fee is a tax-like charge payable to the state and includes water owners fishing in their own area, but excludes fishing in the province of Åland, which has its own regulations. Fishing in the province of Åland is subject to the permission of the holder of the fishing rights.

| | Under 18 or over 65 | 18 to 65 |
|--|---------------------------|--|
| Angling with hook and line, ice fishing | Free of charge, no fees | Free of charge, no fees |
| Lure fishing, spinning or trolling with a single rod | Free of charge, no fees | Fishing management fee and either provincial lure fishing fee or permission given by the owner of the water area |
| All other types of fishing, cray fishing and trolling with multiple rods | Permission of water owner | Fishing management fee and either provincial lure fishing fee or permission given by the owner of the water area |

Methods of licence payment

Both the fishing management fee and provincial lure fishing fee can be paid through an online bank deposit. The angler makes the deposit and prints a receipt themselves, which is used as proof of purchase. This method reduces the need for and associated costs of setting up a separate website with online payment facilities.

Both licenses can also be paid directly through a mobile phone, whereby a text message is sent to a specified number and license details and receipt are sent as a return message. The cost of the license is taken from the user's mobile phone credit.

These methods for license payment are very convenient and simple.

Promotion and enhancement of recreational fishing

Fly Fishing Expo 2010

In February, I attended the annual Finnish Fly Fishing Expo, featuring new and innovative tackle items from across Europe. The two day expo allowed me to test a variety of new equipment unavailable in Australia and to also speak to the designers themselves. Each company's innovations have been summarized below.

Zpey

To switch, in fly fishing terminology, defines the possibility to change between single hand and double hand casting while using the same rod. In 2009, Zpey of Norway developed a bent, attachable Switch handle which connects to any Zpey single handed rod. The unique bent handle allows the user to maintain a straight path of the rod tip and cast more accurately, thus assisting them in catching more fish.

Guideline

The Guideline company of Sweden have created another way of converting their single handed rods to switch rods. Guideline have created an extendable butt section on their switch rods, which can be extended up to 6" from the bottom handle. This allows to the rod to be perfectly customised to the angler and the length of casts being made.

Guideline have also pioneered a new method of balancing their single handed rods. The new method involves a screw in butt cap on the rod, where an assortment of weights can be placed, allowing the rod to be balanced perfectly in the anglers grip.

Loop

The Loop tackle company of Sweden have developed a hexagonal cork grip known as 'X-Grip' which is utilised on their new Evotec line of fly rods. The hexagonal grip provides increased control on the rod when casting and playing fish.

Loop have also utilised a new technology in their fly rods called "Cross Weave". Cross weave technology incorporates a new method of cutting and rolling graphite rod blanks. Loop state that the new technology increases the lifting strength of the rod and also improves its durability.

Vision

The Vision fly fishing company of Finland has produced yet another different style of rod grip known as the 'D-grip'. Through involvement with Vesa Damski from Aalto University, Vision has created a new ergonomic style of rod grip that fits an anglers hand better than traditional styles, providing a greater degree of comfort and control.

Fly fishing workshops with Team Finland

During Summer, I attended one of the Finnish Fly Fishing Team's week long fly fishing workshops. The focus of the course was to share and teach a variety of effective fly fishing techniques the team had learnt from around the world and thus promote and develop the sport. Such techniques included the Czech, Polish, Spanish and French nymphing styles, techniques which are almost unheard of in Australia.

Pike Fly Tying Course

In late Autumn, I attended a Pike fly tying course at Helsinki Spey Clave, given by visiting Pike fisherman from the UK, Matt Hayes. The course focused on trigger points, profile, colour and movement of Pike flies, which I was able to bring together in creating my own Pike fly designs.

This course was one of many organised by Helsinki Spey Clave, to teach and promote fly fishing.

Finnish Federation for Recreational Fishing

The Finnish Federation for Recreational Fishing was founded in 2000 with the main goal of connecting all types of anglers and clubs and ensuring that recreational fishing remains sustainable in Finland. The Federation currently represent and connect over 630 recreational fishing, sports fishing and hunting clubs, from 13 districts, with a combined membership of over 50 000.

The Federation promote and enhance recreational fishing by

- Publishing a guide to recreational fishing locations across the country
- Organise competitions for a variety of fishing methods

- Organise youth fishing camps in each district
- Actively participating in international bodies of recreational fishermen such as the European Anglers Alliance
- Providing submissions to the government on decision affecting recreational fishers.

Promotion of responsible fishing

Steps taken by tackle companies

Vision

To prevent the spread of invasive aquatic species, Vision has taken a proactive step by introducing a rubber soled line of wading boots incorporating 'Stealth Amphibia' rubber. Stealth Amphibia provides the advantage of a quick-cleaning and quick-drying sole from which dirt easily washes away. This is especially important for river eco-systems that suffer from fishermen's felt soles housing bacteria and spreading it from one stream to the next replaces and improves upon rubber and felt sole technology.

Loop

Loop Tackle has actively promoted catch and release fishing for many years – and not only in their rhetoric. Loop own and operate many adventure travel lodges all over the world in countries such as Russia, Argentina and Cuba, and have made it mandatory policy in all venues to release all fish unharmed. Additionally, Loop currently supports two environmental organizations here in Sweden and Europe: Älvräddarna – for the protection of rivers in Sweden and the North Atlantic Salmon fund- for the protection of wild Atlantic salmon.

Steps taken by the Finnish Federation for Recreational Fishing

The Federation promote responsible fishing by:

- Organising habitat repair projects
- Assisting in fish stocking
- Organising free recreational fishing courses in each district
- Publishing guides to fish handling
- Embracing the varied groups involved in recreation fishing through their organisational structure which includes environmental, youth and family, competition, tourism and information committees.

Travels and personal development

Languages

Over the course of the year, I became a fluent speaker of the Finnish language. I studied two intensive Finnish courses at Helsinki University, in conjunction to attending a weekly evening course. On my departure, I achieved a distinction in the National Certificate of Finnish Literacy at the stage three level.

Education

Whilst in Finland, I studied part time in a Finnish upper academic school. This was a requirement of my exchange program, which nevertheless proved to be a different and fulfilling experience.

Travels

Through the year I travelled to Stockholm in Sweden, Tallinn in Estonia, Saint Petersburg in Russia and Oslo in Norway. These travels gave me a variety of experiences that contributed towards my personal development.

Reporting findings

Since arriving home in February 2011, I have reported the findings of my research and have discussed my experiences with a variety of fishing groups.

In April, I addressed the New South Wales Council of Freshwater anglers at their quarterly meeting. In June, I addressed the Recreational Fishing Alliance at their bi-monthly meeting. In July, I addressed the Sydney Fly Rodders Club, focusing specifically on Finnish fishing techniques.

I intend to address the NSW Fishers for Habitat Forum in 2012, where I will give an overview of environmental management in Finland.

Benefits and adoption

Benefits to the applicant

- Increased personal development of my communication skills through interactions with diverse social and linguistic groups.
- Building my advocacy skills through observation and participation in fisheries related activities.
- I have been inspired by direct observation of one of the world's most effectively managed aquatic ecosystems.
- I am now better equipped to contribute to the management of fisheries using the knowledge obtained through this project.

Benefits to others

- FRDC through improved succession planning by training a young leader.
- Advocacy groups through direct future contribution from the applicant.
- Fisheries managers through implementation of more effective management measures developed from the applicant's insights.
- Recreational fishers through improved advocacy and management of fisheries.

Further development

It is recommended that I continue my personal development and leadership skills through involvement in other FRDC programs in the future, such as the National Seafood Industry Leadership Program.

Conclusion

The year I spent in Finland proved to be a fulfilling one whereby I had a variety of new experiences that allowed me to develop further as a person and a leader. The exposure I had to fisheries in Finland showed me that there are smart, innovative and effective ways to manage fisheries and the environment.

Appendix

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