

Souris & Area Watershed News



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Rink-necked Pheasants & Hungarian Partridge

In the 1990's, the Souris & Area Branch of the PEI Wildlife Federation introduced Ring-necked Pheasants (non native species) to our management area. Release efforts seemed to have failed, with the natural elements proving to be too harsh, as these birds they were domesticated.

Five years ago, a partnership between the provinces of New Brunswick, Nova Scotia and Prince Edward Island Wildlife divisions, Pheasants Forever Society and Souris & Area Wildlife emerged to reintroduce Ring-necked Pheasants into the wild. Wild birds were live trapped in Nova Scotia & New Brunswick, where flourishing populations existed, and released in PEI.

Every year, since 2009, there are 10-15 pheasants released in Rollo Bay. There appears to be favorable, marshy habitat in this area. As a result, populations have been growing and have spread from this area throughout the north eastern region of Kings County.

The Hungarian Partridge, or Gray Partridge, was introduced to PEI in the 1950's. Populations within Queens County have remained very stable but Eastern PEI populations remained relatively small

after an initial peak. In recent years, due to milder than normal winter conditions, populations appeared to rebound.

This winter, our Board of Directors decided to initiate a feeding program to ensure ample food supply was available, especially with the harsh winter conditions. Local populations appear to be rebounding so we felt this was a worthwhile endeavor to ensure they continue to flourish. Feed was purchased and supplied, free of charge, to interested community members who would take on the task of creating feeding stations in areas where the birds are known to exist and ensure they are fed on a regular basis.

The response was overwhelming and feeding stations were set up in the following locations: East Point, North Lake, South Lake, Naufrage, Monticello, St. Catherine's, Town of Souris, Souris Line Rd, Souris West, Rollo Bay, Chepstow, Lower Rollo Bay, Bear River and Fortune.

In late February, ten more Ring-necked Pheasants were released on Souris Line Road due to its close proximity to Harmony Pond, which offers good habitat. These birds were live trapped in the Elmsdale and Windsor areas of Nova

Scotia, where healthy populations persist. Watershed Coordinator Fred Cheverie, and Directors Justin McKinnon and Fred Ward assisted PEI Chief Conservation Officer Wade MacKinnon in banding and releasing these birds. Compared to the domesticated birds which were released, these wild birds are much better equipped to survive the harsh winter conditions and avoid predation, making their survival chances much higher.

These birds are very picturesque, especially the males, as they sport many colors. We encourage everyone to take the opportunity to photograph them and submit them to us if you encounter any.

We are requesting the public's help in monitoring the local populations. We encourage anyone who encounters a banded pheasant to contact us.

Again, thank you to all those who have been feeding and continue to feed these local bird populations. Without your dedication, many of these birds may not have survived the winter.

Also, thank you to Kathy McCormack for photographing the release of the pheasants on very short notice.

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2013 Atlantic Salmon Redd Surveys



According to Daryl Guignon's 2009 publication, "A Conservation Strategy for Atlantic Salmon in Prince Edward Island", our management area boasts rivers with sustainable annual runs and rivers capable of sustaining annual runs of native Atlantic salmon. As per this report, each watershed was designated a classification, barring specific conditions. The following table outlines the classification system from this report:

River Classification	Description	Watersheds in our Management Area
I	Annual runs of Atlantic salmon that should be sustainable barring catastrophic events	Cross River, Naufrage River, North Lake Creek, Priest Pond Creek
II	Annual runs should continue if proper management actions occur relating to water quality and beaver management	
III	Populations of Atlantic salmon are very low and may not survive without immediate intervention	
IV	Populations of Atlantic salmon have disappeared since 2002 mainly due to beaver activity and land use issues	Cow River, Hay River, Souris River
V	Atlantic salmon populations have once existed but disappeared before 2002	Bear River, Fortune River

In this report, outlined restoration activities for specific watersheds were designed to ensure the sustainability of current populations and to revive habitat in degraded watersheds to once again become capable of sustaining native runs. Our branch has followed these prescribed guidelines very closely since 2009. Our efforts have proven very successful as reflected by our Atlantic salmon redd surveys. Cow River and Hay River, both Class IV Wilderness Rivers and Bear River, a Class V Wilderness, have lost their populations of Atlantic salmon before 2002. Their returns to Hay River and Cow River in 2011, and Bear River in 2013, serve as a testament to the restoration projects completed by our field staff. A copy of this publication is available on our website.

Beginning in the early 1990's, Atlantic salmon spawning surveys were conducted in the North Lake Creek watershed, solely. Since 2008, these surveys have become an annual event to include nine watersheds in our management area. Our staff has worked closely with PEI Freshwater Fisheries Biologist Rosie MacFarlane, of the PEI Fish & Wildlife Division, and Guignon to gain the necessary skills and experience in redd identification.

Each autumn, shortly after Halloween, preliminary assessments are conducted to determine if spawning has begun. Based on these assessments, thorough surveying generally begins in mid November. Led by our trained field staff and complimented by a dedicated community volunteer base, the main branches and important tributaries of nine watersheds are assessed for redds, or nests. Each group uses a handheld GPS to mark the coordinates of each redd and in many cases encounter more than one redd in the same location. This data is then inputted into mapping software to produce a visual representation of the results.

The following table outlines the results of the 2013 Atlantic salmon redd surveys:

Watershed	# of redds
Bear River	16
Cow River	50
Cross River	268
Hay River	43
Naufrage River	453
North Lake Creek	333
Priest Pond Creek	151
Total	1314

Spawning activity was noted in both Souris River and Fortune River watersheds, however redds were not able to be conclusively proved to be the result of Atlantic salmon spawning. There were six redds suspected in Souris River and ten redds in Fortune River. Since there has been no records of Atlantic salmon in both these watersheds since before 2002, MacFarlane also assessed these redds to provide a second opinion. Still, it was deemed inconclusive what species of fish were spawning here. The return of Atlantic salmon to both these watersheds would be significant. Both watersheds will be electro fished in the 2014 field season in hopes of finding Atlantic salmon near these spawning sites.

The 2013 surveys marked a record breaking year for spawning activity in many watersheds. Generally, steady increases in spawning activity in most of our watersheds have been observed. The following table outlines surveying results from 2008-2013:

Watershed	2008	2009	2010	2011	2012
Bear River	n/a	n/a	n/a	0	0
Cow River	n/a	n/a	n/a	4	1
Cross River	120	70	100	190	83
Hay River	n/a	n/a	n/a	1	3
Naufrage River	100	32	33	429	43
North Lake Creek	200	213	205	355	106
Priest Pond Creek	11	8	14	20	21
Souris River	n/a	n/a	n/a	0	0
Total	431	323	351	999	257

We have been working diligently to expand the geographic range of Atlantic salmon to many of our watersheds. In 2009, Souris River was designated a "Research River" on Prince Edward Island serving as a study area for Atlantic salmon stocking programs. Upon the completion of habitat restoration projects and the installation of 29 digger logs, over 4000 Atlantic salmon parr were released in six strategically chosen areas in the watershed. These fish were acquired from the Fish Hatchery in Dover, which is no longer in existence. In 2012, we facilitated a transfer between two geographically proximal watersheds; North Lake Creek and Hay River. Nearly 450 Atlantic salmon parr were extracted from three different areas in the North Lake watershed, fin clipped, and live released in Hay River. Pending permitting, we planned to transfer parr to Cow River in 2013, however spawning assessments indicated this was not necessary this year.

According to Dr. David Cairns' report, "The Status of Atlantic salmon (*Salmo salar*) on Prince Edward Island (SFA 17) in 2011", redd surveys can provide critical information for conservation requirements, stock assessments and regulations surrounding the species. One factor which can be drawn from this information is the amount of male and female spawners in each watershed. According to this report, there is one female spawner for every 3.357 redds and one male spawner for every 6.919 redds. Coupled with survival rate formulas, and past surveys, estimates can be made to assess the stock number in each watershed. This report is also available on our website.

The following table outlines the approximate number of male and female spawners in each watershed based on Atlantic salmon redd assessments in 2013:

Watershed	~ # of female spawners	~ # of male spawners
Bear River	5	2
Cow River	15	7
Cross River	80	39
Hay River	13	6
Naufrage River	135	65
North Lake Creek	99	48
Priest Pond Creek	45	22

Atlantic salmon populations in our region are designated as a species of "special concern", which indicates that they may become threatened or endangered due to a combination of biological characteristics and/or other threats. Various funding programs are in place to help revive habitat to encourage the promotion of sustainable stocks. We have been fortunate to receive funding from the Atlantic Salmon Conservation Foundation, PEI Wildlife Conservation Fund, and the Department of Fisheries & Oceans Recreational Fisheries Conservation Partnerships Program to fund projects associated with Atlantic salmon conservation.



Fisheries and Oceans
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Canada

Atlantic Salmon or Brown Trout?

It was reported by local anglers that an Atlantic salmon was caught on the Souris River during the extended season for Rainbow trout. This fish was unlike the saltwater steelheads which the fishermen had been landing. All anglers casting a line that day were very confident that this fish was in fact an Atlantic salmon.

This claim was forwarded to Souris & Area Wildlife staff however there was not much that could be done without the fish itself. After reporting this claim to PEI Freshwater Fisheries Biologist Rosie MacFarlane, a request for a photograph was put forth, since this fish was released, as per regulations.

Not many of those fishing on this day were carrying cameras so a photograph was hard to come by. Towards the end of the extended season angler Elliot Williams, of Beach Point, landed a similar fish. After hearing word of this initial claim, he photographed his catch and forwarded it to our branch.

This photograph was submitted to Rosie MacFarlane and Todd Dupuis, Executive Director of Programs for the Atlantic Salmon Federation, for identification. Conflicting identification arose as one claimed this was an Atlantic

salmon and the other claimed this was a sea run Brown trout. Both parties shared this photo with counterparts in Atlantic Canada, many of whom are the most experienced fisheries biologists in the region. Of the eight biologists, they were evenly divided with four identifying the fish as an Atlantic salmon and the other four as a sea run Brown trout.

Unfortunately, a photograph is not the most ideal way to identify a fish. MacFarlane suggested the next angler to hook such a fish run their fingers along the upper roof of the fish's mouth and feel for their vomerine teeth. An Atlantic salmon has one row, where a Brown trout has two rows.

Atlantic salmon were released in Souris River in 2009, as part of a research effort to evaluate stocking programs. Souris River, a Class IV Wilderness River, had lost its Atlantic salmon runs before 2002 mainly due to the activity of a flourishing beaver population.

We had anticipated these released fish would have returned prior to this year. Both spawning surveys and electro fishing surveys have not provided any indication of their return, so these claims are being taken with a high degree of seriousness. One problem with this fish is that its size was not



Unidentifiable fish caught and photographed in Souris River by Elliot Williams

consistent with the life stages of Atlantic salmon released in 2009.

Both Atlantic salmon and Brown trout are anadromous fish which spawn in fresh water in the fall. Sea run Brown trout have been reported in the DeSable River, West River and Hillsborough River in PEI and are very common in the Pictou and Antigonish counties of Nova Scotia.

During the 2014 field season, we plan to conduct extensive electro fishing surveys within our management area. Souris River will be thoroughly surveyed to determine the fish species inhabiting this watershed, with the hopes of finding an Atlantic salmon. With the angling season just around the corner, we encourage all anglers to report any suspicions of Atlantic salmon to us.

ANNUAL GENERAL MEETING

April 8th • 7:00 pm • Souris Striders Ski Lodge

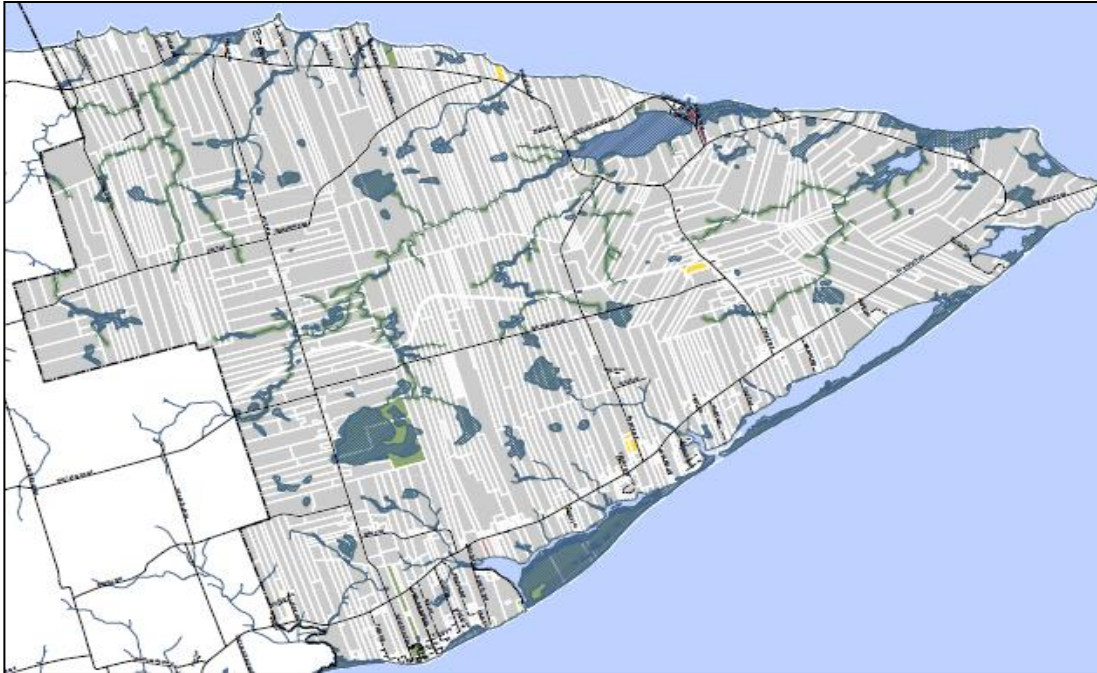
We invited the public to attend our Annual General Meeting. There will be two presentations:

1. "2013 Field Activities" by Assistant Watershed Coordinator Jill MacPhee
 - Projects completed by the Souris & Area Wildlife Branch will be highlighted through a photographic presentation
2. "Silent Springs: Potential Impacts of Deep Water Well Extraction on Prince Edward Island" by Daryl Guignon
 - This presentation will outline threats to aquatic ecosystems and water resources on Prince Edward Island

Daryl Guignon is a retired professor with 40 years of experience teaching wildlife biology courses. He has travelled tip to tip, exploring streams and natural areas and has gained a vast understanding of ecosystems on PEI. Although he is retired, he continues to work closely with UPEI and local watershed groups providing technical advice on watershed management.

Tea, coffee, and refreshments will be served. All welcome!

New 60 meter Buffer Zone in North Lake Creek, Priest Pond Creek & East Lake Creek



In 2012, we published our third watershed management plan for the North Lake Creek & Priest Pond Creek watersheds. The plan was written to incorporate both watersheds due to similar characteristics and close geographic proximity. The plan is community sanctioned and serves as a guide for environmental activities with goals and objectives reflective of the watershed stakeholders.

Currently in PEI, there is a legislated buffer zone of 15 meters. A buffer zone is a protected area alongside watercourses and wetlands. These areas are important in protecting water resources by filtering and collecting contaminants from surface runoff water. They also provide valuable habitat for a variety of wildlife. In freshwater streams, this distance is measured from the edge of the sediment bed, in tidal areas, from the top of the bank and for wetlands, from the edge of the wetland vegetation. Activities within buffer zones, such as agricultural practices, cutting trees, altering, removing or disturbing ground or soil, and building, repairing or removing structures and obstructions, to name a few, are tightly regulated through permitting. For more information of buffer zones and regulations or to obtain permits visit the following website: www.gov.pe.ca/environment/buffer-zones.

As part of this watershed management plan, it was proposed by the stakeholders to expand the current 15 meter buffer zone to a legislated 60 meter buffer zone in both the North Lake Creek and Priest Pond Creek watersheds.

The Eastern Kings Community Council (EKCC) is an incorporated municipal body governing the most eastern region of PEI. The entirety of the North Lake Creek watershed, and majority of the Priest Pond Creek watershed, fall under their jurisdiction. The EKCC was updating their bylaws in 2013, so our branch saw this as an opportunity to enact this change under municipal law. Fred Cheverie worked with the EKCC and their planning committee to rewrite this bylaw to incorporate this change. The planning committee also proposed this change should be expanded to include the East Lake Creek watershed, as it falls within municipal boundaries.

As per protocol, readings were held at the EKCC planning meetings and public meetings were held to gain approval for this change. Unanimous support was granted by the community and the recommended changes were forwarded to the Minister of Finance Energy and Municipal Affairs.

In early 2014, extended buffer zones in the freshwater streams within North Lake Creek, Priest Pond Creek and East Lake Creek have officially become legislated at 60 meters. This is the first community driven buffer zone expansion and the largest buffer zone to exist on PEI. This conservation measure is a critical step to ensuring healthy riparian areas exist to protect the forest and stream habitat to ensure sustainability for future generations.

Souris & Area Wildlife Branch would like to applaud the vision and leadership shown by Eastern Kings Community Council and local stakeholders in ensuring the protection of our natural resources and setting the precedent for environmental protection measures on PEI.

PEI 2014: Eco-tourism in Eastern Kings

PEI 2014 Inc. is a non-profit organization mandated to plan and execute the 2014 program, centered on the celebration of the Charlottetown Conference of 1864 and PEI's role in the formation of Confederation. The PEI 2014 Fund has been established to celebrate this legacy in communities across PEI. The Souris & Area Branch of the PEI Wildlife Federation was awarded \$50,000 for a two year project to implement eco-tourism in eastern Prince Edward Island.

Beginning in June 2014, we will be offering two separate eco-tours:

(1) Discover Basin Head:

Basin Head is one of eight Marine Protected Areas in Canada. This designation implies an ecologically significant area with species and/or properties that require special consideration under the *Oceans Act*. In Basin Head, a unique strain of Irish moss, *Chondrodorus crispus*, exists in the lagoon and is not known to exist anywhere else in the world.

Basin Head also boasts a protected ecosystem of rare lichens within its sand dune barrier network, which is one of three areas in North America to house this species.

This eco-tour will explore the wonders of marine ecosystems. Firstly, an interactive computer kiosk, developed by Fisheries and Oceans Canada, will be used to showcase the scientific aspects of the ecosystem. Participants will then be led on a guided, narrative walk exploring the history of Basin Head, the inshore fishery, the "singing sands", marine community ecology, sand dune networks and local flora. The walk will finish with a seine in the lagoon to provide a "hands on" approach to explore the local marine aquatic community.

(2) Bike New Harmony:

New Harmony and East Baltic boast an exciting history with the railway. New Harmony was one of five railroad junctions on PEI during the height of the railway. Participants will spend the majority of the time cycling along the Confederation Trail between the Souris Line Road and East Baltic. This route will take participants through winding agricultural and forested areas, crossing various streams along the way. Stops along the way will highlight an artesian well, Brook trout nursery, "Fountain Head" spring, the "Big Elm", and an osprey's nest. The agricultural and forestry industries on PEI will be explored on this tour.

Both of these tours will be led by tour guides well versed in local knowledge. Both tours are offered free of charge, with donations graciously accepted. Each will last up to three hours. Bicycles and helmets will be provided, although participants are welcome to use their own. Helmets will be mandatory.

We are in the process of developing a website to market these tours, which will feature regularly updates with dates, time and any further information. Brochures are also being produced for distribution at Tourist Information Centers, local business, and card racks around the community. If any cottage rental owners, Bed & Breakfast operations, campgrounds and/or businesses would like these brochures please contact us for delivery arrangements.

During public meetings held while developing the North Lake & Priest Pond Watershed Management Plan, it was unanimously expressed that residents were proud of the natural beauty of the area and their desire to promote these natural elements to visitors, in particular, was strong. Both tours aim to incorporate the serenity of the local area relating the history of the sea and the construction of the railroad as drivers in Prince Edward Island joining Confederation of Canada.

The following online resources will be used for promotion, tour times, and further information once final plan are complete:

- www.souriswl.com
- www.basinhead.com
- www.pei2014.ca
- Facebook: Souris & Area Branch of the PEI Wildlife Federation



Circle Hooks: An Alternative to the “J” Hook

The traditional 'J' hook used by most anglers is great for catching fish, but can cause serious injuries or mortality to fish when removing it. An alternative to the J hook is the circle hook, which is made in the shape of an open circle. When a fish swallows the bait, the circle design allows the hook to slide back up and hook onto the inside of the fish's mouth. Circle hooks are commonly used in commercial or salt water fisheries but are growing in popularity in freshwater angling. Circle hooks are widely available anywhere fishing gear is sold.

When using a circle hook, anglers may need to adjust their fishing technique. The traditional method of “jerking” on the line to set the hook doesn't work with circle hooks. Anglers are advised to simply reel in and the hook should set on its own. We are encouraging anglers to give this hook a try.

The recreational angling season is quickly approaching, with opening day on Tuesday, April 15th. Popular fishing areas are usually crowded with anglers hoping to catch the “big one”. We would like to take this opportunity to remind anglers to ensure they are licensed before casting their line. As well, please do your part to keep your fishing area free of litter. We have placed garbage cans at popular fishing holes, so be sure to take advantage.

The 2014 Angling Summary, which outlines specific angling regulations, will be available shortly. You can obtain a copy when you purchase your angling license. An electronic copy will also be posted on our website. Anglers can expect an expansion in the extended season for Rainbow trout to include additional rivers. New gear restrictions will also be implemented to protect Atlantic salmon as they journey to sea. Stay tuned for further details.

Interested in become a member of the Souris & Area Branch of the PEI Wildlife Federation? *2014 Memberships are now on sale!*

There are many benefits of becoming a member:

- Participate, free of charge, in Souris & Area Wildlife activities
- Be the first to know of unique volunteer opportunities and environmental projects in the local area
- Receive electronic, color copies of Souris & Area Watershed News
- Voting privileges on resolutions at annual meetings
- Enhance and preserve the community in north eastern Kings County through community support and involvement

Memberships can be purchased for a fee of \$10.

Cash or cheque made payable to “Souris & Area Branch of the PEI Wildlife Federation”.
Your 2014 membership card will follow in the mail.

To purchase your 2014 membership:

- Call us at (902) 687-4115
- Email us at sourisareawildlife@gmail.com
- Fill out the form and mail it along with your membership fee

If you are interested in making a donation above and beyond your membership fee, please ensure cheques are made payable to the “PEI Wildlife Federation” in order to receive an official tax receipt.

Name: _____

Address: _____

City/Province: _____

Postal Code: _____

Telephone: _____

Email: _____

Payment:

Please check one or both:

- Membership (\$10)
 Donation

Amount enclosed: \$ _____

(Note: An official tax receipt can only be issued for the donation amount and will not include the \$10 membership fee)

Souris & Area Branch of the PEI Wildlife Federation

PO Box 692
Souris, PEI
C0A 2B0

Phone
(902)687-4115

Website
www.souriswl.com

E-mail
sourisareawildlife@gmail.com

Facebook
Souris & Area Branch of the PEI Wildlife Federation

About Us

The Souris & Area Branch of the PEI Wildlife Federation is a non-profit, environmental organization dedicated to the conservation, protection, and enhancement of watersheds in north eastern Kings County. Our management area accounts for approximately 62,000 hectares including 24 individual watersheds.

The goals of our organization include:

1. The protection and enhancement of fish and wildlife and their habitat
2. Planning, protection and restoration activities at the watershed scale
3. Education of the general public on environmental issues, both locally and regionally
4. The promotion of outdoor recreational activities
5. Regular communicate with our stakeholders to create a more informed community



President's Comments: Brian MacDonald

Our Annual General Meeting will be held on Tuesday, April 8th, 2014 at 7:00 pm at the Souris Striders Ski Lodge. We will have two presentations during the meeting. Jill MacPhee will deliver a presentation outlining the "2013 Field Activities" completed by our branch. Invited guest speaker, Daryl Guignon's presentation "Silent Springs: Potential Impacts of Deep Water Well Water Extraction on Prince Edward Island" will incorporate threats to our aquatic ecosystems and water resources on PEI. This is a presentation you will not want to miss. Water issues affect everyone, so we encourage all community members to attend to gain further insight on this issue.

We realize many are hesitant of attending annual meetings for fear of "getting a job". You will not have to worry, unless you want one, of being forced into a position. Our nominating committee will have an executive ready for approval at the meeting.

Spread the word and come celebrate the great environmental projects happening in our management area. Tea, coffee and refreshments will be served!

Coordinator's Comments: Fred Cheverie

Our organization has a rich history in stream enhancement, beginning in the 1970's as the first watershed group on PEI to undertake such field enhancement projects. Our branch strives to ensure unimpeded fish passage and connectivity throughout all our watersheds, regardless of limitations place on us, primarily associated with staff size.

Over the last few years, we have been able to restore over 100km of stream annually within our management area. Most watersheds are 68 - 85% forested, leading to very little sediment inputs into our streams. We boast some of the most pristine watersheds in the province. The activity of beavers, however, proves to remain a constant struggle. Our provincially sanctioned beaver management plan allows important areas in key watershed to be designated as "beaver free" and can be trapped by our certified staff trapper.

Consistency has proven to be the key to our organizations success over the past ten years. With the hiring a full time coordinator, we are able to focus on hiring field staff each year to oversee field related projects. Our field staff work diligently each day, to ensure there is adequate habitat for spawning, rearing, foraging, for our fish populations. As a result, we are seeing greater densities of fish in many of our rivers and streams.

In 2013, the largest increase of Atlantic salmon spawning activity was noted. The average number of redds over the last five years was 480, among nine watersheds. This year 1314 redds were surveyed, marking a 273% increase from the average. This would indicate approximately 190 male spawners and 391 female spawners in the surveyed watersheds.

We feel that recreational angling in Eastern Kings is one of our best kept secrets. One of our newest long term goals is to establish and market our area as a sports fishing capital in PEI. The economic value of recreational angling in Canada, in recent years, has been higher than commercial fishery. As with this goal, we aim to attract anglers from all over to our area, in hopes that we will aid in increasing economic activities within the local area.

Avid fly fishermen Cameron Ross had started a new business in the area offering personalized guided fly fishing tours. With over 30 years of experience fly-fishing in eastern PEI, he knows the area well. *On The Fly PEI*, offers adventures for beginners to the most experienced fishers. This is a great opportunity for locals and visitors alike to cast a line and experience the majestic natural areas north eastern Kings County has to offer. For more information or to book your guided tour, visit www.ontheflypei.ca.