



## From sand grains to salmon: why forage fish are vitally important

by Dianne Sanford and Ramona DeGraaf

You have heard it before: “all things are connected.” Can you connect beach sand grains to the food chain of Pacific salmon, blue herons or killer whales? These are just some of the hundreds of predator species that feed on the sea’s “forage fish.” Herring are the most familiar forage fish, but surf smelt, Pacific  
*continued on page 3*

## Needed: a sound management plan for the future of Howe Sound

by Ruth Simons

Smack in the middle of a panoramic view of Howe Sound, a giant gravel mine is in the planning stage for McNab Valley. This is alarming on an immediate level: the impact the mine could have on the area is devastating. But the fact that the proposal is even on the table highlights a gap in long-term planning for the best use of the region’s land and water. If one part of

Howe Sound is damaged, the damage ripples out and affects the entire body of water and the surrounding communities. Without a common vision among local councils and decision makers, we’re leaving the sound vulnerable.

The Future of Howe Sound Society was formed in 2011 by a group of concerned residents in response to the proposed Burnco mine. The society’s mission is to bring together all levels of government, First Nations and many stakeholder organizations to come to an official consensus about how to keep Howe Sound strong, economically and environmentally, with a long-term comprehensive land and water use plan that also recognizes the sound’s social and cultural values.

The Future of Howe Sound Society is composed of volunteers with skills and time to donate. Our objective is to encourage the development of an overall comprehensive management plan for Howe Sound that recognizes and protects the social, economic and cultural values of this natural, beautiful environment. It is clear there is a strong interest from communities around the sound to share information and advocacy on common issues, such as derelict boats, illegal activities and air quality.  
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The Vancouver groundcone (pictured above) is just one of half a dozen or more strange parasitic plants that thrive in the forests of the Sunshine Coast.

## The bizarre, exciting life of our forest soil

Photos by Rick O’Neill. Text by Andrew Scott

On the back cover of the last issue of the SCCA newsletter we featured photos by Rick O’Neill of two strange plants: Indian-pipe and pinesap. In this issue we decided to show more of Rick’s excellent images, and also provide some background about these unusual species, which contain no chlorophyll and can survive entirely without sunshine.

For years, these types of plants were known as saprophytes (from the Greek *sapros*, meaning “rotten”), as they were believed to be able to live on decaying organic matter. Today botanists think that such species are parasitic, and get their sustenance from fungi. Now they go by the ungainly name of myco-heterotrophs. Many of them call the Sunshine Coast home.

Most plants, of course, use a process called photosynthesis to convert

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## Exciting life of the soil

sunlight into chemical energy and ultimately create the green world that surrounds us. However, beneath the forest floor things



*Indian-pipe* (*Monotropa uniflora*). All photos by Rick O'Neill

are very different. The fungi that pinesap and its relatives feed on are already in a co-dependent relationship, joined on a cellular level to the roots of trees. The trees provide the fungi with



*Candystick* (*Allotropia virgata*).

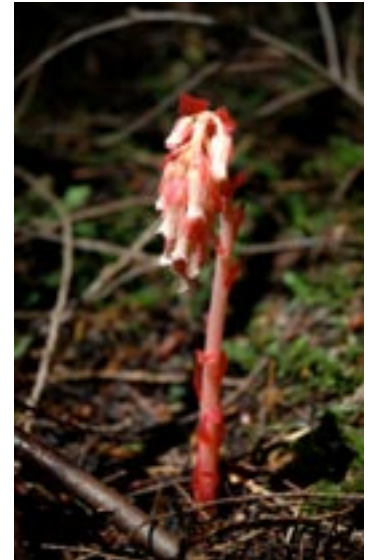
carbohydrates; the fungi help the trees get water and minerals. It's not known, though, what benefit, if any, the fungi receive from being parasitized by pinesap and Indian-pipe. Such is the exciting, incestuous life of the soil.

Some myco-heterotrophs can be quite particular about what they parasitize. Candystick, for instance (also known as sugar-stick, barber's pole and devil's wand), feeds on the thread-like roots, or mycelium, of the pine or matsutake mushroom. The life cycle of other heterotrophs, such as the scarce gnome-plant—



*Gnome-plant* (*Hemitomes congestum*).

which looks like a black, scaly clump when it first appears above ground, then bursts open into a cluster of pinkish flowers—is not fully understood.



*Coralroot* (*Corallorhiza* sp) and *pinesap* (*Hypopitys monotropa*).

**Here are a few tidbits harvested from the invaluable *Plants of Coastal British Columbia*, by Jim Pojar and Andy MacKinnon (Lone Pine Publishing):**

- **Coralroot** is an orchid; there are several different species.
- The word for **Indian-pipe** in the Straits Salish language means "wolf's urine." The plant is believed by some to grow where a wolf urinates. It was used as a poultice for wounds.
- **Vancouver groundcone** (*Boschniakia hookeri*) is parasitic on members of the heather family (Ericaceae), such as salal and kinnickinnick. It is also called poque, after the Kwakwaka'wakw name for the plant. Some First Nation groups apparently considered the groundcone a good luck charm. A single plant can produce more than 300,000 seeds.

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### Planning for Howe Sound's future

Over the past few months, we have attended local government council meetings and asked councillors to support the concept of a comprehensive management plan for Howe Sound. We've formed a coalition of like-minded organizations to represent airshed, watershed, marine environment and land issues. The discussion about the need for a comprehensive plan has been well-received and has generated action among local governments.

In the meantime, the Future of Howe Sound Society is hosting a forum to take place in West Vancouver on April 13, 2013. This forum will bring together elected officials, industry and business associations, non-profit organizations and First Nations.

Outcomes from the event will be recorded and shared in order to carry the common vision forward. We do not know what form of planning document will result, but we do expect a commitment to work across jurisdictions and a better vision of the future of Howe Sound for those who live, work and play in the region. For more details about the forum, please visit [futureofhowesound.org/campaigns/howesoundforum/](http://futureofhowesound.org/campaigns/howesoundforum/).

For up to date information about the Burnco mine, visit [www.futureofhowesound.org](http://www.futureofhowesound.org). Please sign the petition and add your voice if you have not already done so. For updates about all aspects of the Future of Howe Sound Society, sign up for e-news at [futureofhowesound.org/about-the-society/register/](http://futureofhowesound.org/about-the-society/register/).

*Ruth Simons is executive director of the Future of Howe Sound Society*

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### The importance of forage fish

sand lance and capelin are also smaller species that spawn on marine shorelines. Let's try to discover some connections.

Have you seen silvery surf smelt leaping at high tide? Using the beach surf, ripened female smelt rush to release their eggs. The one-millimetre-wide eggs produce an anchor-grabbing membrane that catches pea-sized pebbles—a weight belt that tumbles the eggs to incubate in nurseries a few centimetres below the beach surface.

In winter, Pacific sand lance move to sand or fine gravel beach areas for spawning. After weeks below the surface, their tiny beach babies, only three millimetres long, swim out with the ebbing tide.

From these little fish, big things grow! The year-round abundance of forage fish determines the survival of larger predators. It is estimated that some species of rockfish and salmon rely on Pacific sand lance alone for between ten and 50 percent of their diet.



*Fish foragers Angela Kroning, Rick O'Neill and Dianne Sanford.*

Marine shore spawners face an uncertain future in British Columbia. In terms of size, intertidal spawning beaches are one of the most limited habitat types found in the Strait of Georgia. Shoreline alterations for human development can result in the loss of spawning habitat. In the last few years, local communities have begun sampling beaches to document and protect crucial habitat.

The SCCA was pleased to receive a Sunshine Coast Community Foundation grant last year on behalf of the Sunshine Coast Friends of Forage Fish. The grant allowed us to purchase additional equipment for our trained volunteers to use.

As you enjoy your favourite ocean beach walk, remember to connect the vital role our beaches play in providing food for the marine food web, and remember the need to protect the spawning habitats at your very feet.

For additional information, please visit our website: [www.friendsofforagefish.com](http://www.friendsofforagefish.com).

If you would like to volunteer, contact volunteer coordinator Dianne Sanford at 604-885-6283 or email [info@friendsofforagefish.com](mailto:info@friendsofforagefish.com).

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# Rockfish sanctuaries are another reason to preserve sponge reefs

by Roy Mulder, President, Marine Life Sanctuaries Society of BC

The Marine Life Sanctuaries Society of BC has begun the process of protecting BC's delicate glass sponge reefs. Currently MLSS has been studying reefs in the Vancouver area to determine their importance as nurseries for rockfish. It is clear that the sponges play a critical role as safe habitat for juvenile fish.

Many of the reefs are composed of live sponges growing on top of older dead ones, constituting moundlike formations known as bioherms. Some bioherms have been determined to be between 8,000 and 9,000 years old. The sponges themselves are biologically most unusual. They are composed of silicate, which is why they are referred to as glass sponges.

Given their fragile nature, it doesn't take much to destroy them. A drag net running over the delicate reefs would result in total devastation. Hook-and-line fishing can also do severe damage. Years ago many of the local commercial fishermen had a gentlemen's agreement to avoid these areas, as they understood their significance for creating future generations of rockfish.

MLSS has been mapping reefs in Howe Sound and is including them in an effort to create voluntary marine sanctuaries. The reefs within dive range are being studied, and video is being recorded to chronicle reef life. Glen Dennison has developed a drop camera that can go well beyond dive range. Using these techniques MLSS has been able to pinpoint reef locations and also document the juvenile rockfish that the reefs protect.

Many rockfish have life spans beyond 100 years. Their stocks have been decimated by years of overfishing by both commercial and sport fishers. For rockfish stocks to come back, a concerted



effort will be required to create full no-take marine sanctuaries to protect the juvenile fish.

Catch-and-release will not work, as rockfish bladders expand when the fish are brought to the surface, rendering them incapable of going back to depth after being caught. A full fisheries closure model is the only solution. It has been clearly demonstrated in many other parts of the world that if a zone is set aside for protection, fish will eventually spill over into the surrounding areas, thus providing a benefit to fishers in the future.

Canada fully protects less than two percent of its coastline. If we want fish stocks to come back, critical habitats like the sponge reefs must be preserved. There are several of these unique reefs in Howe Sound and the Strait of Georgia, as well as elsewhere on the BC coast. It is important for us to identify them and give them adequate protection. We encourage people interested to join MLSS and support the effort to create voluntary marine sanctuaries. Please visit our website at [www.mlssbc.com](http://www.mlssbc.com).

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## Wild and free? The rivers of the Bute and Toba watersheds

*A special habitat report from the SCCA*

A major current initiative of the SCCA is the **Habitat Area Nomination Project**, the ultimate goal of which is to formally nominate specific areas of the Sunshine Coast Forest District as either Wildlife Habitat Areas (WHAs) or Fisheries Sensitive



Homathko River view from Homathko Camp. The river's milky colour is caused by "rock flour" and glacial melt. David Moore photo

Watersheds (FSWs). A touring educational program about biodiversity—and about how to protect the specific biodiversity of this region—is also an important component of the HAN Project.

Another project priority is to assemble the best available scientific information about marbled murrelet nesting habitat in our region and nominate those areas for WHA status through BC's Ministry of Environment. We already have critical data about murrelet population densities in all the region's major watersheds, and we also have a wealth of information about the specific qualities that characterize the bird's nesting habitat.

In the last issue of the SCCA newsletter, we published research on four potential Fisheries Sensitive Watersheds on the populous lower Sunshine Coast: Chapman Creek, Wilson Creek, McNab Creek and Dakota Creek. In this issue, by contrast, we travel to the northern part of the forest district and examine five of our wildest and most biologically productive waterways: the Homathko River, Southgate River, Orford River, Brem River and Toba River. Each is a deserving candidate for FSW status. More detail on all aspects of the HAN Project can be found on the SCCA website at [www.thescca.ca](http://www.thescca.ca).

## Homathko River

The Homathko River system is one of three major watersheds emptying into the upper reaches of Bute Inlet in the northernmost part of the Sunshine Coast Forest District. The peak historical escapements from this river were 15,000 coho, 7,500 pink, 75,000 chum, 15,000 chinook and 7,500 steelhead.

Logging began in the early 1900s and continues today. In 1983, as a result of BC Hydro's interest in building a dam

upstream of Waddington Canyon, fish sampling was undertaken. A Watershed Restoration Program proposal (1994) noted very high fish and wildlife values, and identified some logging damage. This proposal resulted in an overview assessment and preliminary fish assessment (1997-98) on the lower Homathko. Homathko Estuary Provincial Park and the Homathko River-Tatlayoko Protected Area were created in the same years.

A Level 2 Watershed Assessment (1999) was conducted

within the Chilcotin plateau region of the watershed, where rainbow trout and Dolly Varden are present. These species, as well as cutthroat trout, also inhabit the lower section of the river. In addition, the presence of bull trout was confirmed in 2001. The most recent readily available maximum escapement (1988-97) is 100 pink, 2,000 chinook and 6,000 coho (1986-2000), and 18,000 chum (1989-99).

The river continues to be a major chum and pink producer (2009). Nine grizzly bear WHAs were designated in 2008.

In 2009, a report noted the world-class nature of the cutthroat and bull trout recreational fisheries on both the Homathko and Southgate rivers, and identified concerns with proposed private run-of-river hydroelectric projects in the area. In a statement of intent, filed with the BC Treaty Commission, the Homalco (Wxemalhkwa) First Nation identified Bute Inlet and

*continued on page S2*

### Salmonid escapement figures for the Homathko River

|      | Coho   | Pink   | Chum   | Chinook | Totals  | Steelh'd |
|------|--------|--------|--------|---------|---------|----------|
| 1948 | 7,500  | 7,500  | 75,000 | 15,000  | 105,000 | 400      |
| 1952 | 15,000 | 1,500  | 35,000 | 3,500   | 55,000  | 750      |
| 1956 | 3,500  | 200    | 200    | 7,500   | 11,400  | 7,500    |
| 1967 | 3,500  | -      | 3,500  | 3,500   | 10,500  | -        |
| 1972 | 1,500  | 750    | 75,000 | 3,500   | 80,750  | -        |
| 1982 | 10,000 | -      | 50,000 | 5,000   | 65,000  | -        |
| 1986 | 6,000  | -      | 15,000 | 7,500   | 28,500  | -        |
| 1993 | 400    | 18,000 | 350    | 0       | 18,750  | 0        |

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**Homathko River**

its watersheds as part of its traditional territory. There are three First Nation reserves near the estuary of the Homathko River. A confidential Impact Benefit Agreement, which establishes a framework under which both the Homalco and an independent power producer (Plutonic) could work together to advance projects within the territory, was reached in 2011.

**Southgate River**

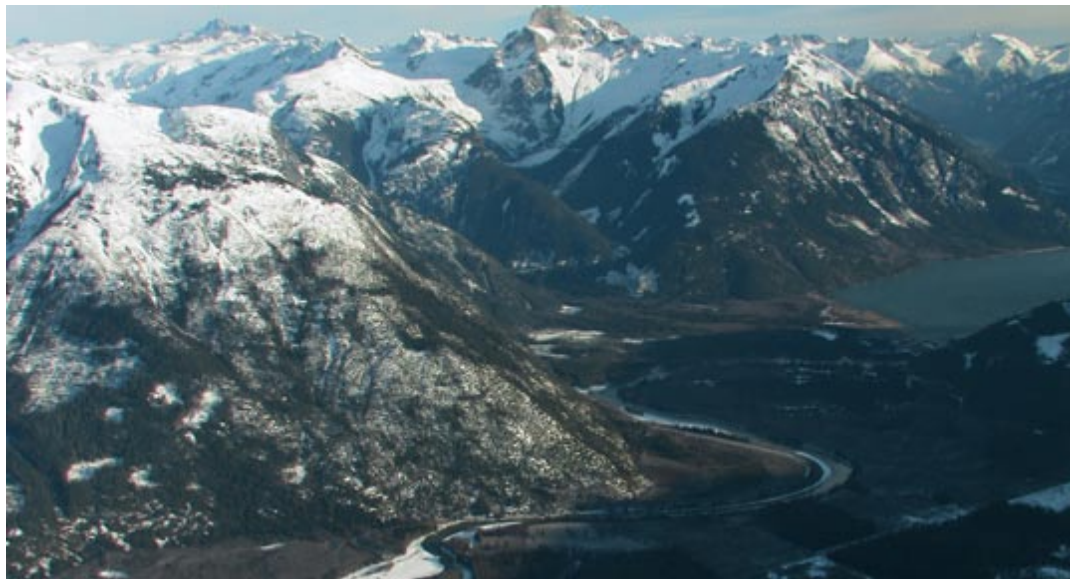
The Southgate River is another of the three major watersheds emptying into upper Bute Inlet. The Southgate has spectacular wildlife values, and had peak historical escapements of 7,500 coho, 7,500 pink, 250,000 chum, 15,000 chinook and 1,500

**Salmonid escapement figures for the Southgate River**

|      | Coho  | Pink  | Chum    | Chinook | Totals  | Steelh'd |
|------|-------|-------|---------|---------|---------|----------|
| 1947 | 3,500 | 7,500 | 15,000  | 15,000  | 41,000  | 400      |
| 1949 | 1,500 | 1,500 | 7,500   | 3,500   | 14,000  | 1,500    |
| 1964 | 7,500 | -     | 15,000  | 7,500   | 30,000  | -        |
| 1975 | 1,500 | 400   | 3,500   | 3,500   | 8,900   | -        |
| 1981 | 500   | -     | 125,000 | 3,000   | 128,500 | -        |
| 1986 | 4,000 | -     | 250,000 | 6,500   | 260,500 | -        |
| 1988 | 3,500 | -     | 95,000  | 1,400   | 99,900  | -        |
| 1993 | -     | -     | 175,000 | -       | 175,000 | -        |

steelhead. Accurate counts are sometimes difficult due to severe glacial conditions.

Logging occurred from at least the late 1960s to the late '70s. A commercial gillnet chum fishery in Bute Inlet ended in the late 1980s, as the chum population declined. A Watershed Restoration Program proposal (1994) indicated that the river required remedial



The Homathko River is in the foreground, with the head of Bute Inlet at right. The Southgate River, barely visible at the centre of the image, also enters Bute Inlet. Damion Gillis photo



The boundary of the Sunshine Coast Forest District is outlined in red. This map shows the locations of all the proposed FSWs.

work to the estuary and riparian improvements for grizzly bears.

A fish and fish-habitat inventory (1998) confirmed the presence of blue-listed bull trout, Dolly Varden and cutthroat trout.

A 2001 report noted good spawning and rearing habitat for char, salmon and trout species throughout much of the accessible 74-km main stem and lower reaches of the main tributaries (the Bishop River and Elliot and Icewall creeks).

The most recent readily available peak escapements are 850 coho (1989-98), 60,000 pink and 175,000 chum (1990-2000). In 2004, the winter run of steelhead was described as an extreme conservation concern. The Southgate is still (2009) considered one of the three major chum productions systems in the Loughborough to Bute Inlet Management Area.

# Orford River

The Orford River system is the third of three major watersheds emptying into the upper reaches of Bute Inlet in the northern-most part of the Sunshine Coast Forest District. The Orford



Google Earth image of the Orford River valley.

had peak historical escapements of 3,500 coho, 7,500 chinook, 100,000 pink, 137,000 chum and 750 steelhead. In addition there were Dolly Varden, cutthroat and rainbow trout. Logging occurred in the watershed between 1973 and 1990.

A fish-habitat assessment procedure was conducted on the main stem and major tributaries in 1988 on behalf of forest products companies. A spawning channel was created in 1989-90, and it was during the enumeration of the spawners that the presence of both summer and fall runs of chum were identified.

# Toba River

Toba Inlet is the next major fjord south of Bute Inlet and, like Bute, once supported significant fish and wildlife resources. The Toba had historical peak escapements of 35,000 coho, 75,000 pink, 75,000 chum and 12,000 chinook. These numbers do not include escapements from major tributaries such as the Klite and Little Toba rivers and Filer Creek. The most recent available data for the Toba River is 1,000 coho (1983-92), zero pink (1984-92), 32 chinook and 600 chum (1989-98).

Logging originally occurred in the 1960s and '70s. In 1975, 1,150 cubic metres of gravel were removed from the high river bars. The following year, a salmonid reconnaissance was undertaken. A 1994 Watershed Restoration Program proposal noted that the Klite and Little Toba rivers needed rehabilitation, and that the Toba itself required remedial work for wildlife at its estuary, as well as grizzly-oriented riparian improvements.

The Klahoose First Nation, according to a statement of

A Watershed Restoration Program proposal (1994) noted that the system required grizzly bear-oriented riparian improvements. In 1999, fish-presence, channel and riparian assessments were conducted. The Homalco (Wxemalhkwa) First Nation, according to the statement of intent listed with the BC Treaty Commission (1994), includes this Bute Inlet watershed as part of its traditional territory; a major reserve and the Taggares-Homalco Hatchery are located on a lower section of the river.

In 2002 the summer run of steelhead was identified as a special concern. Another (2004) report noted an extreme conservation concern for the summer run and the presence of possible small winter runs. Channel instability, bank erosion and sediment transport were challenges facing these runs.

The most recent readily available maximum escapements are 50 chinook, 3,700 pink and 600 coho (1989-98), and 27,000 chum (1995-2000). The Orford is still considered a major system for both chum (summer run only) and pink production.

Homalco Wildlife Tours began grizzly bear viewing programs in the lower section of the river in 2011.

### Salmonid escapement figures for the Orford River

|      | Coho  | Pink    | Chum    | Chinook | Totals  | Steelh'd |
|------|-------|---------|---------|---------|---------|----------|
| 1947 | 3,500 | 7,500   | 35,000  | 7,500   | 35,500  | 200      |
| 1948 | 1,500 | 750     | 15,000  | 1,500   | 18,750  | 750      |
| 1957 | 1,500 | 15,000  | 15,000  | 400     | 31,900  | 200      |
| 1962 | 1,500 | -       | 7,500   | 1,500   | 10,500  | -        |
| 1967 | 1,500 | 15,000  | 3,500   | 750     | 20,750  | -        |
| 1973 | 1,500 | 100,000 | 100,000 | 25      | 201,525 | -        |
| 1976 | 400   | -       | 137,000 | 75      | 137,475 | -        |
| 1982 | 1,000 | -       | 80,000  | -       | 81,000  | -        |
| 1987 | -     | -       | 18,000  | -       | 18,000  | -        |
| 1993 | -     | 3,700   | 60,000  | -       | 63,700  | -        |

### Salmonid escapement figures for the Toba River

|      | Coho   | Pink   | Chum   | Chinook | Totals  | Steelh'd |
|------|--------|--------|--------|---------|---------|----------|
| 1947 | 7,500  | 35,000 | 7,500  | -       | 50,000  | -        |
| 1952 | 7,500  | -      | 75,000 | 1,500   | 84,000  | -        |
| 1957 | 35,000 | 75,000 | 35,000 | 1,500   | 146,500 | -        |
| 1962 | 7,500  | 0      | 3,500  | 1,500   | 12,500  | -        |
| 1967 | 10,000 | 10,000 | 8,000  | 10,000  | 38,000  | -        |
| 1970 | 12,000 | -      | 2,000  | 12,000  | 26,000  | -        |
| 1973 | 6,000  | 8,000  | 1,000  | 6,000   | 21,000  | -        |
| 1977 | 4,000  | -      | 2,000  | 0       | 6,000   | -        |
| 1984 | 1,000  | -      | 8,000  | 300     | 9,300   | -        |
| 1988 | 800    | -      | 1,100  | 0       | 1,900   | -        |

continued on page S4

continued from page S3

## Toba River

intent listed with the BC Treaty Commission (1994), are claiming the entire Toba River watershed as part of their traditional territory. In the mid-1980s the Klahoose sought changes to destructive logging practices in the Toba watershed. The effort



Tella Sametz photo

was not successful. Subsequently, logging companies were denied access to the watershed. The Klahoose currently have a community forest licence over most of the Toba watershed.

Fish and fish-habitat inventories were conducted in 1998 on behalf of the Klahoose First Nation and Ministry of Environment. BC's largest run-of-river hydroelectric project (East Toba/Montrose Creek) was successfully commissioned in 2010. Further fish sampling was conducted in the upper reaches of the Toba as part of provincial environmental assessments for the Toba/Montrose and Upper Toba hydroelectric projects.

The watershed is also known to host Dolly Varden, rainbow trout and cutthroat trout. The winter run of steelhead is listed as an extreme conservation concern in the Klite, Little Toba and Toba rivers (2005).

Within the Toba Inlet Management Area, the Little Toba is considered a major system for chum production.

## Brem River

The Brem River in Toba Inlet historically had peak annual escapements of 10,000 coho (1970), 35,000 pink, 7,500 chum, 2,000 chinook (1970) and 3,500 steelhead. It was described as

a very stable river and an excellent producer of coho, pink and steelhead in 1959. Within a few years, the effects of logging were noted: in 1965, half the redds (egg nests) were lost due to unstable discharge; in 1979, a six-metre change between the height of summer and winter flows was documented. By 1984, most of the lower river's banks and channels were scarred and eroded. A Watershed Restoration Program proposal in 1994 indicated that the river still supported an important and uncommon

### Salmonid escapement figures for the Brem River

|      | Coho   | Pink   | Chum  | Chinook | Totals | Steelh'd |
|------|--------|--------|-------|---------|--------|----------|
| 1949 | 400    | 35,000 | 3,500 | 25      | 38,925 | 400      |
| 1952 | 3,500  | 35,000 | 7,500 | 0       | 46,000 | 1,500    |
| 1954 | 3,500  | 15,000 | 1,500 | 0       | 20,000 | 3,500    |
| 1967 | 6,000  | -      | 5,000 | 1,000   | 12,000 | -        |
| 1969 | 10,000 | 50     | 500   | 2,000   | 12,550 | -        |
| 1978 | 200    | 600    | 150   | 25      | 975    | -        |
| 1982 | 0      | 50     | 100   | 0       | 150    | -        |
| 1988 | -      | 2,500  | -     | -       | 2,500  | -        |

summer run of steelhead, as well as winter runs of steelhead, cutthroat, rainbow trout and Dolly Varden, in addition to the salmon species. The proposal recommended road deactivation, slope stabilization and erosion control.

The Klahoose First Nation has lands at the mouth of the Brem River and, in a statement of intent filed with the BC Treaty Commission (1994), claims traditional rights to the river. Fish stock assessments and escapement estimates were conducted in the 1990s. In 2001, a fish and fish-habitat inventory was released after the Brem was identified by the Klahoose and the BC Ministry of Environment as a priority watershed for fisheries inventory and management.

The most recent maximum annual escapements are 2,500 pink (1989-98), 361 chum (1989-98), two chinook (1989-98) and zero coho (1985-94). The Brem is still considered (2009) a major potential system both for the production of pink and chum on the inner south coast, with operational management escapement goals of 35,000 and 15,000, respectively.



Aerial view of the Brem River.

Google Earth



## New film about declining salmon stocks features Alexandra Morton

Biologist Alexandra Morton and filmmaker Twyla Roscovich are hitting the road to bring the controversial new film *Salmon Confidential* to communities around BC. If you missed their presentations in Gibsons and Powell River in early April, you can still watch the film online, at [www.salmonconfidential.ca](http://www.salmonconfidential.ca).

The 70-minute documentary chronicles Morton's journey from the banks of the Fraser River to the Cohen Commission hearings to unravel the mysteries of the province's declining salmon stocks.

Morton discovered that BC's wild salmon are testing positive for dangerous European salmon viruses associated with salmon farming. Government, however, refuses to acknowledge these findings. The film documents Morton's attempts to overcome government and industry roadblocks and bring critical information to the public in time to save wild salmon. As she tracks the viruses, Morton moves from courtrooms to grocery stores and sushi restaurants to BC's most remote rivers.

The film provides surprising insights into the inner working of government agencies, as well as rare footage of the bureaucrats tasked with managing our fish and the safety of our food supply.

Local community groups are hosting *Salmon Confidential* screenings across BC, followed by discussions with Morton and Roscovich about the making of the film, the politics and the future of wild salmon. The pair will offer ideas on how people can come together to restore wild salmon. The politics and scientific findings around this issue are evolving rapidly, and the discus-

sions bring audiences up to date.

The film is being released online, in addition to the public showings. "It is critical that people hear what is happening to this generous fish and why," said Morton. "We don't have to be helpless bystanders as government tries to bury the evidence. The careers of all who dare to research these European viruses in BC are under attack, but disease in salmon cannot be a federal secret any longer if we want wild salmon to be here for our children."

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*"We don't have to be helpless bystanders as government tries to bury the evidence. . . . disease in salmon cannot be a federal secret any longer if we want wild salmon to be here for our children."*

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The upcoming election has given the film tour a sense of urgency. "This whole nightmare could be over tomorrow, and we could have our wild fish back," said Roscovich, "if the next provincial leader commits to removing salmon feedlots from the wild salmon migration routes. They need to hear from the public that the wild salmon economy is too valuable to sacrifice to the salmon farm industry. The people of BC deserve to know what is documented in this film, and then they can let candidates know they will be taking wild salmon to the polls."



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**Newsletter editors:**

Tella Sametz, Andrew Scott

**Advertising co-ordinator:** Richard Carton

**SCCA directors:**

Jason Herz (chair), Katie Janyk, Marianne Larsen, David Moore, Gayle Neilson, Melissa Rayfield, Janice Talbott, Jeremy Valeriotte, Linda Williams

For more information about the SCCA—and to view this newsletter in full colour—please visit our website at:

[www.thescca.ca](http://www.thescca.ca)

**Third annual fantastic boat raffle**

Great news for (small!) boat lovers and all those who love to explore the beautiful waters of our coast. The SCCA is excited to have another Seaward kayak for our fundraising raffle this year, as well as some wonderful locally donated items for second and third prize.

The Seaward Halo kayak is four metres (13 feet) long with a rudder and is light enough to carry by yourself and easy to transport. It is perfect for day tripping around all our nooks and crannies or for popping over to Gambier for lunch.

We're also very grateful to two other sponsors from last year—Patrick Mark of Mr Mender and Paul Hansen of the West Coast Wilderness Lodge—as you have a chance to again win two Helly Hansen waterproof jackets, or a Sechelt Inlet Zodiac tour for four people.

We had a great time last year attending many local events from one end of the coast to the other. We started with the Canada Day parade in Sechelt, and had our info booth and kayak out and about right up until the Banff Mountain Film Festival in Gibsons. It was a great opportunity to meet people and to share information about the issues we're working on. This year we hope to see you a little earlier, on April 21 at the Earth Day celebration at Roberts Creek pier.

The Sunshine Coast, as always, is facing many complex environmental issues, so please keep an eye out for the SCCA booth at all our local events, from the Wooden Boat Festival to the Mushroom Festival. Raffle tickets will be on sale throughout the spring and summer, and one lucky winner will be kayaking this fall!



Watch out for the SCCA fundraising raffle. You could win a Seaward kayak.

**Sunshine Coast Conservation Association**

MEMBERSHIP APPLICATION

MEMBERSHIP RENEWAL

Individual name: \_\_\_\_\_

Individual membership: \$20

Other family members: \_\_\_\_\_

Family membership: \$30

Group or business name: \_\_\_\_\_

Group membership: \$40

Mailing address: \_\_\_\_\_

Business membership: \$100

Additional donation: \$ \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Website: \_\_\_\_\_

**The purpose of the Sunshine Coast Conservation Association (SCCA) is to preserve the natural biodiversity of the Sunshine Coast region for the present and future benefit of humanity and all life.**

As a member of the SCCA, I accept its purpose as stated above.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Please mail cheque or money order with this completed application to: SCCA, Box 1969, Sechelt, BC V0N 3A0  
Receipts for income tax purposes will be issued for donations of \$25 or more. Registered charity #87322 0446 RR0001

## Message from the Chair

by Jason Herz

Well, it has been a busy and tumultuous ride since our last newsletter, with many issues—especially Narrows Inlet and the community forest—occupying our time. Read on.

- Elphinstone Park, long a concern for the SCCA and for many others in the community, has moved up the list of priorities for the SCCA board. We hope to push land-use planning forward and dissuade further incursions into areas worthy of protection. The goal is the creation of a contiguous park.



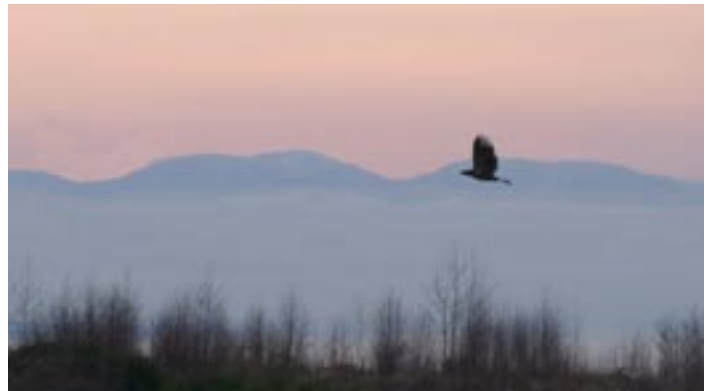
Tella Sametz photos

- The potential gravel-extraction site at **McNab Creek estuary** is still in process and should soon enter the next phase of public input. Stay tuned.
- Mount Richardson Provincial Park has suffered what the SCCA feels to be an inappropriate use of the foreshore and uplands by an adjacent leaseholder. We are awaiting decisions from BC Parks that will hopefully resolve this issue.
- **Gambier Island Conservancy**, along with the **Islands Trust Fund** and the SCCA, will finalize three conservation covenants very shortly. These will protect in perpetuity some valuable habitat on our beautiful local islands. Watch for notification of this auspicious event.
- We are participating in a new group, the **Coastal Douglas-fir and Associated Ecosystems Conservation Partnership (CDFCP)**, which will work towards further protection of our coastal Douglas-fir zone. The CDF zone, of course, has been significantly diminished by human incursion, and we plan to bring greater attention to this threatened ecosystem.
- One of the great successes of the year has to be the heroic decision of Gibsons council, whereby the Gospel Rock Neighbourhood Plan now denotes the entire waterfront portion of the plan area as green space, along with the unique upland forest slopes. The SCCA has long participated in efforts to preserve the area's rare and endangered ecosystems, and our thanks go out to the **Friends of Gospel Rock** and other campaigners for their vigilance. Now we must work towards long-term protection for this significant piece of property.
- It would be difficult, sadly, to describe the **Sunshine Coast**

**Community Forest** as equally responsive to the wider community. The elimination of the Community Forest Advisory Committee was the first hint of things going astray. It had at least given the appearance of community participation. The SCCF continues to disregard the Joint Watershed Management Agreement and the public's desire to protect its drinking water supplies. It has conveniently forgotten a previous promise to restrict activity in the Chapman watershed by proceeding with forest thinning. The ultimate travesty was the logging of block EW002 along the banks of East Wilson Creek and the obtaining of a court injunction that resulted in the arrest of community members, including an elder from the Sechelt Nation. This 130-year-old lower-elevation forest, which had seen virtually no industrial activity since its reappearance after a fire, was a rare and easily accessible treasure. We feel that the governance and oversight of Sechelt Community Projects Inc must change. The community's voice must be heard. Speak out!

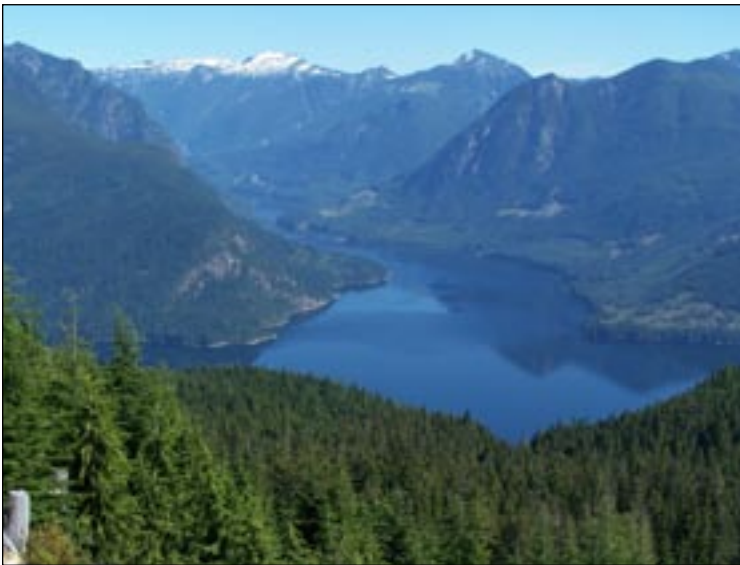
- In October 2012, the federal environmental assessment of the Narrows Inlet Hydro Project (NIHP) came up for public review and input. This project involves the near-draining of three alpine lakes and diversion of a fish-bearing portion of Chickwat Creek, a tributary of the Tzoonie River. The area has significant grizzly, mountain goat and amphibian habitat, possible goshawk and wolverine habitat, flight corridors for nesting marbled murrelets and many fish-bearing watercourses.

Much to our chagrin, project proponents brought forward 15,000 pages of documentation for review. We asked for an extension of the review period, but only five additional days were granted. Even the province found the volume of material insurmountable, and a forests ministry report complained that “a complete review of all components of the assessment was simply not possible.” To the credit of our SCCA reviewers, we managed to put together a very comprehensive package, which is available on our website, [www.thescca.ca](http://www.thescca.ca).



Recently, the Environmental Assessment Office listed various deficiencies and “show stoppers” for this project. On January 25, 2013, the review process was suspended at the request of the proponents, who also indicated that two portions of the project—SS Lake and CC Lake—may be withdrawn. The big question now is whether or not the revised project will come back for public comment. We feel that this should certainly take place.

As I said at the beginning, a busy and tumultuous time. If you wish to offer your time in addressing these and other issues, the SCCA would love to hear from you. Contact us at [chair@thescca.ca](mailto:chair@thescca.ca) or [office@thescca.ca](mailto:office@thescca.ca).



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