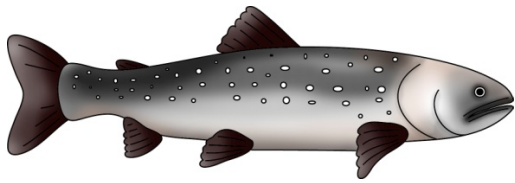
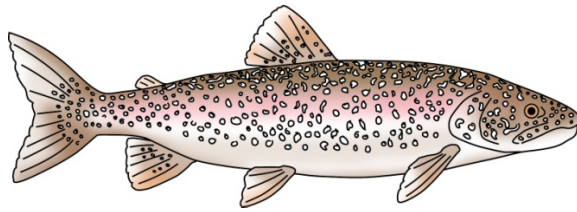


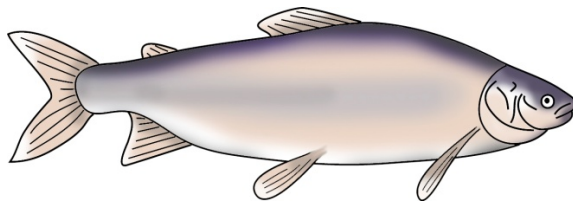
Section A



Arctic Charr
Section A-1



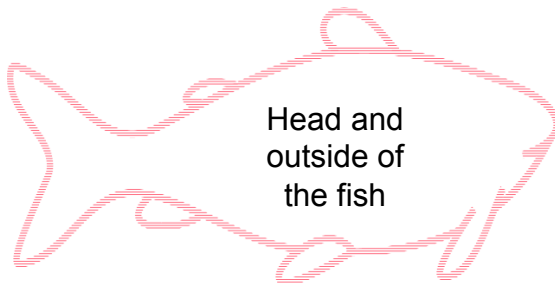
Lake Trout
Section A-2



Whitefish
Section A-3

Section A

Diseases and Parasites of Fish



Cuts, scrapes and scars



Photo Credit: J.D. Reist



Photo Credit: D.K. McGowan

Arctic charr

Section A-1.2

Lake trout

Section A-2.2

Whitefish

Section A-3.2

Parasitic copepods



Photo credit:
Manon Simard:
Makivik Corporation

Arctic charr

Section A-1.2

Lake trout

Section A-2.2

Whitefish

Section A-3.2

Fungus in fish (Internal fungal infection)



Photo Credit: DFO

Arctic charr

Section A-1.3

Lake trout

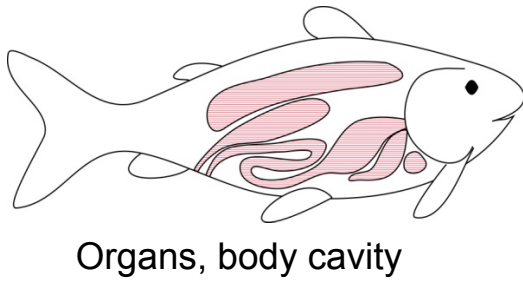
Section A-2.3

Whitefish

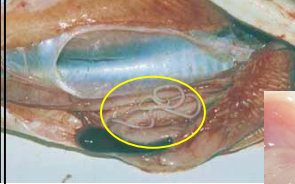

Section A-3.3

Section A


Diseases and Parasites of Fish





Roundworms

	Photo Credit; Manon Simard; Makivik corporation
	
Arctic charr	Section A-1.4
Lake trout	Section A-2.4
Whitefish	Section A-3.4

Adult tapeworms

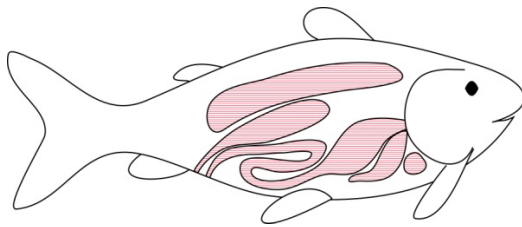
	Photo Credit: D.B. Stewart
Arctic charr	Section A-1.5
Lake trout	Section A-2.5
Whitefish	Section A-3.5

Tapeworm cysts

	
Photo Credits: D.B. Stewart	
Arctic charr	Section A-1.6
Lake trout	Section A-2.6
Whitefish	Section A-3.6

Section A

Diseases and Parasites of Fish



Organs, body cavity

Thorny-headed worms



Photo Credit: L.M.J. Bernier

- | | |
|--------------|---------------|
| Arctic charr | Section A-1.7 |
| Lake trout | Section A-2.7 |
| Whitefish | Section A-3.7 |

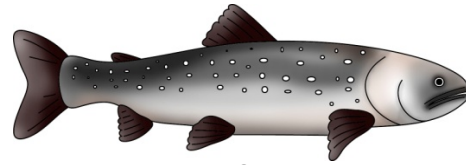
Fungus in fish (Internal fungal infection)



Photo Credit: DFO

- | | |
|--------------|---------------|
| Arctic charr | Section A-1.3 |
| Lake trout | Section A-2.3 |
| Whitefish | Section A-3.3 |

A-1.1



Arctic Charr

Cuts, Scrapes and Scars



1. Where are they found ?

- Cuts, scrapes and scars can occur anywhere on the body.

2. What are they ?

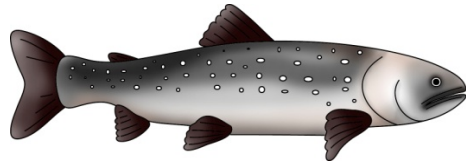
- Cuts, scrapes and scars can be caused by many different things such as gill nets or low water levels in spawning areas.

Photo Credit: J.D. Reist



Photo Credit: D.K. McGowan





Cuts, Scrapes and Scars

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

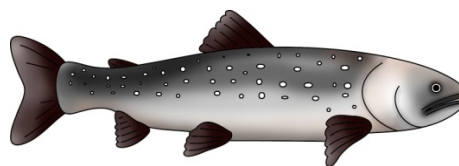
5. Is it safe to feed to dogs ?



For more information go to [H-A.1](#)

A-1.2

Copepods



Arctic Charr



1. Where are they found ?

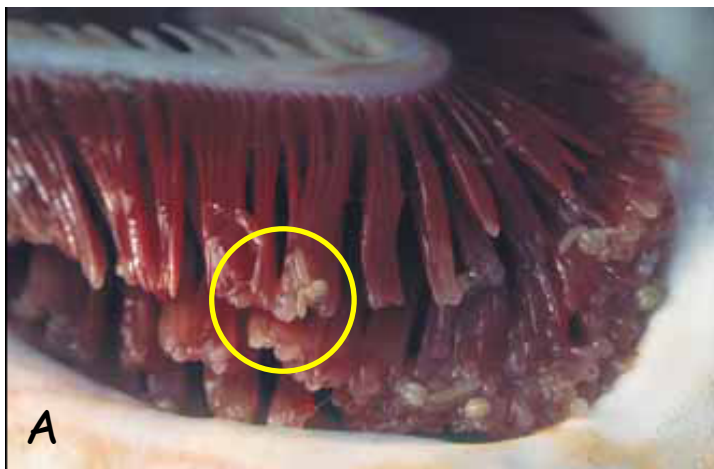


Photo Credit: D.B. Stewart

- Copepods are found attached to the gills (Photo A), to skin on the inside of the mouth (Photo B and C) or to the fins.

2. What are they ?

- Copepods are small water-living animals that live on fish.
- Adult copepods attach themselves permanently to the fish.

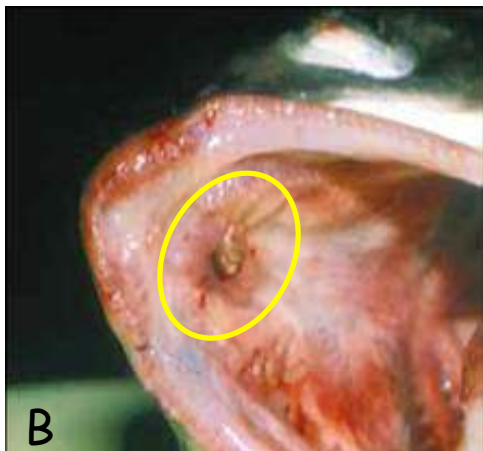


Photo Credit: L.M.J. Bernier

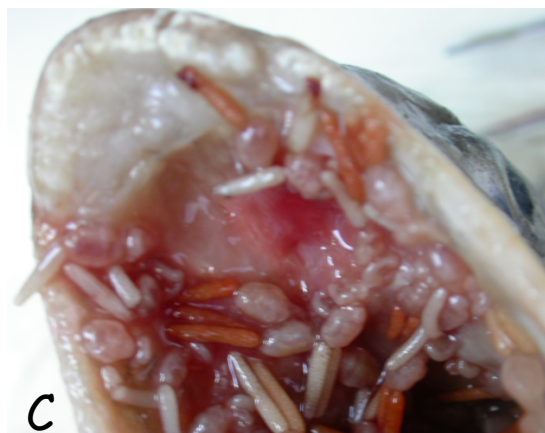
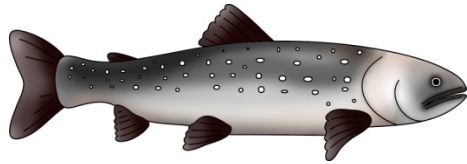


Photo Credit: Manon Simard; Makivik Corporation



Copepods

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

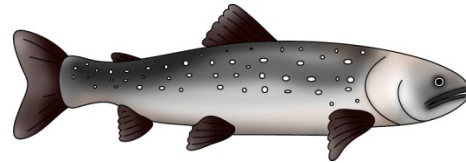
SAFE

5. Is it safe to feed to dogs ?



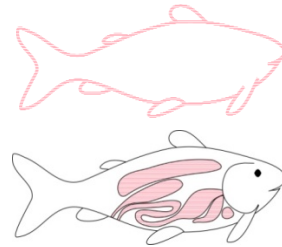
For more information go to [H-A.2](#)

A-1.3



Arctic Charr

Fungus in fish (Internal fungal infection)



1. Where is it found ?

- Fungus may be taken into the fish as it fills its swim bladder with air.
- In rare cases, the fungus may grow, spread and infect many areas in the body.

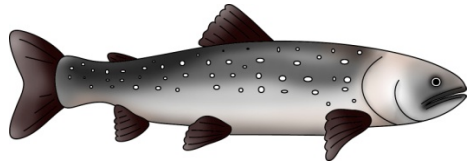
Photo Credit: DFO

- This photo shows patches of fungus (like bread mould) found inside fish.



2. What is it ?

- This is a fungus that is normally found on plants but can get into fish.



Fungus in fish (Internal fungal infection)

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

WARNING

It is not recommended to eat fish that looks unusually sick and has fungus on the inside.

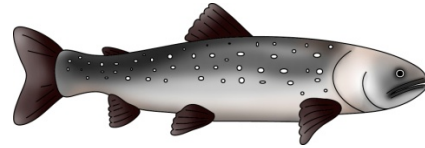
5. Is it safe to feed to dogs ?

It is not recommended to feed dogs anything that is not safe for humans to eat.



For more information go to [H-A.3](#)

A-1.4



Arctic Charr



Roundworms

1. Where are they found ?

- Roundworms can be found on any organ of the body and also in the flesh.

Photo Credit: D.B. Stewart

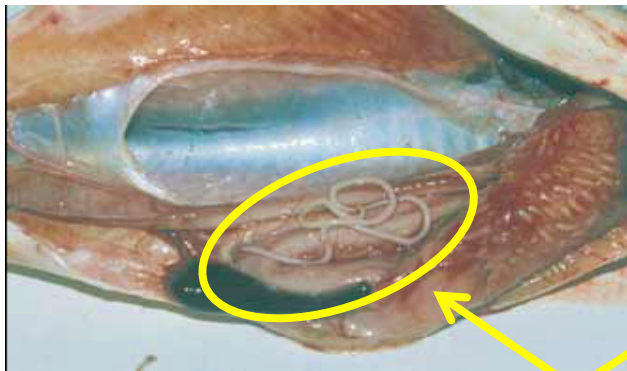
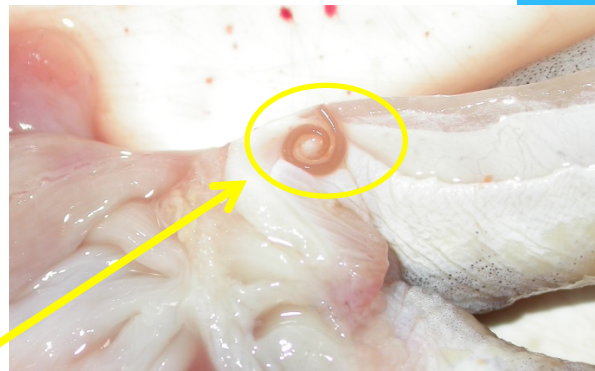


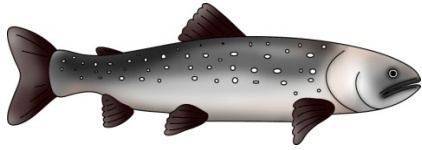
Photo Credit: Manon Simard;
Makivik Corporation



Roundworms in the body cavity.

2. What are they ?

- Roundworms are parasitic worms.
- Adults can be quite large (up to 20 cm in length).
- Immature roundworms are found coiled.
- Roundworms are cream, brown or red in colour.



Roundworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

Human health risks are uncertain.

Please read “Human health concerns” in section H-A.4

CAUTION

5. Is it safe to feed to dogs ?

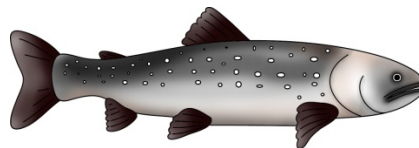
Please read “Safety of the meat for dogs” in section H-A.4



For more information go to [H-A.4](#)

A-1.5

Adult Tapeworms



Arctic Charr



1. Where are they found ?

- Adult tapeworms are found in the intestine of fish.

Photo Credit: D.B. Stewart

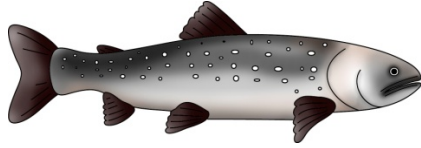


- This photo shows an adult tapeworm from the intestine of a fish.

- Some worms can grow as long as 40 cm.

2. What are they ?

- These are parasitic worms that live in the intestine of fish.
- They are fairly common.



Adult Tapeworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

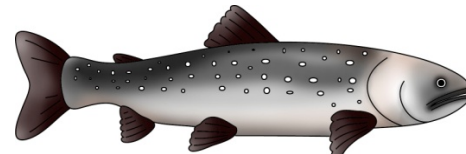
5. Is it safe to feed to dogs ?



For more information go to [H-A.5](#)

A-1.6

Immature Tapeworms

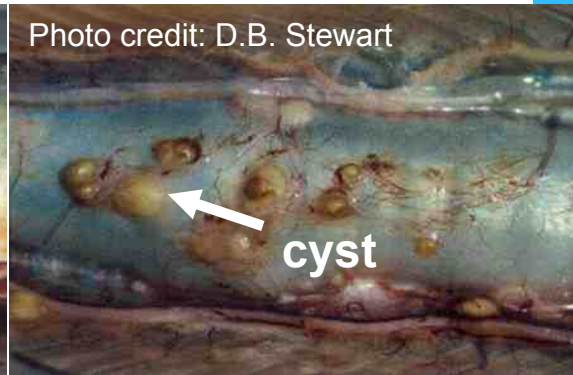
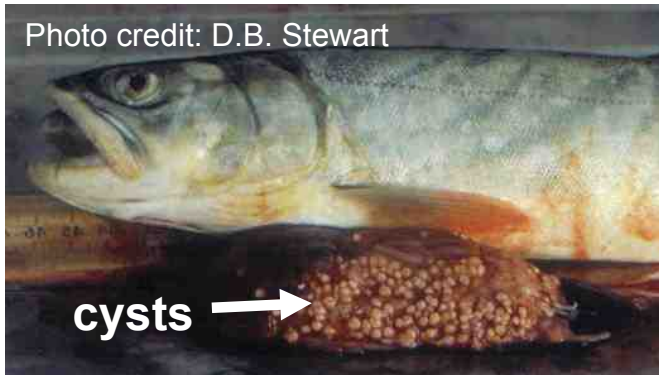


Arctic Charr



Fish

1. Where are they found ?



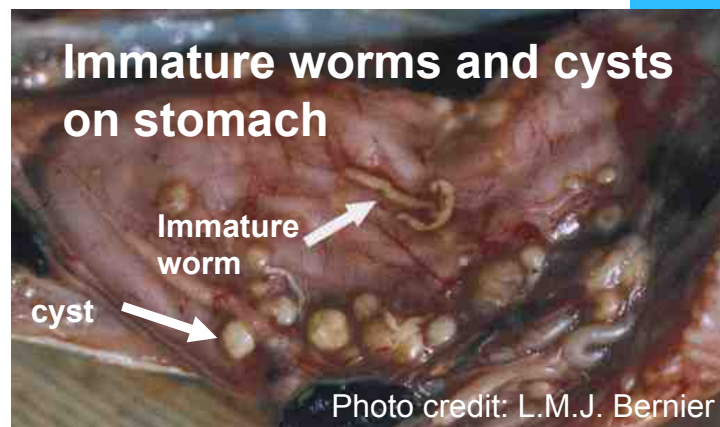
- Within the gut cavity and on the surface of organs.

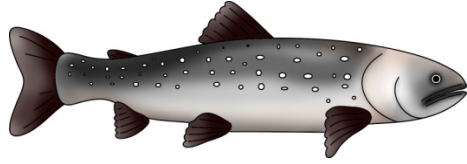
- Attached to the swim bladder.

- Immature tapeworms can live within a sac (cyst) or they may live free (not within a cyst) in the fish.

2. What are they ?

- Immature tapeworms are young worms that mature into adult worms within animals, such as seals (see seal tapeworms in sections C-1.6 and C-2.6), which feed on fish containing these immature worms.





Immature Tapeworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

It is recommended to cook*
the fish well before eating it.

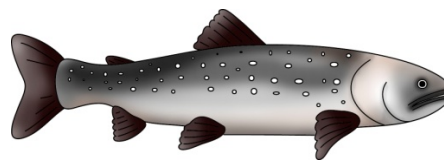
5. Is it safe to feed to dogs ?

It is recommended to cook* the
fish well before feeding to dogs.

•Cooking, as well as freezing, will
kill most worms.

For more information go to [H-A.5](#)

A-1.7



Arctic Charr



Thorny-headed Worms

1. Where are they found ?

- Thorny-headed worms appear most often in the intestine of the fish, but can sometimes occur in the stomach.

Photo Credit: L.M.J. Bernier

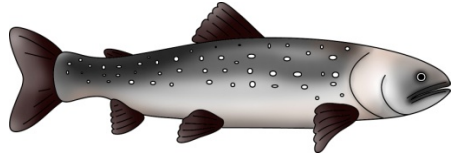
- This photo shows adult thorny-headed worms attached to the intestine of a fish.



- Sores may occur at the point of attachment.

2. What are they ?

- These are parasitic worms that live in the intestine of fish.
- Worms can grow to be 1 to 3 cm in length.
- They are fairly common.



Thorny-headed Worms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

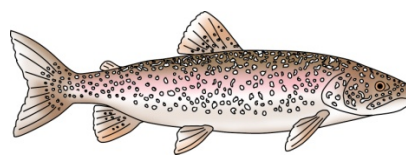
5. Is it safe to feed to dogs ?



For more information go to [H-A.6](#)

A-2.1

Cuts, Scrapes and Scars



Lake Trout



1. Where are they found ?

- Cuts, scrapes and scars can occur anywhere on the body.

2. What are they ?

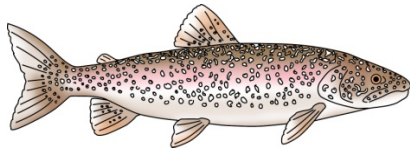
- Cuts, scrapes and scars can be caused by many different things such as gill nets and low water levels in spawning areas.

Photo Credit: J.D. Reist



Photo Credit: D.K. McGowan





Cuts, Scrapes and Scars

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

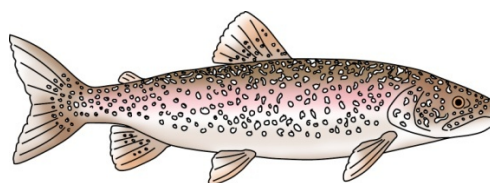
5. Is it safe to feed to dogs ?



For more information go to [H-A.1](#)

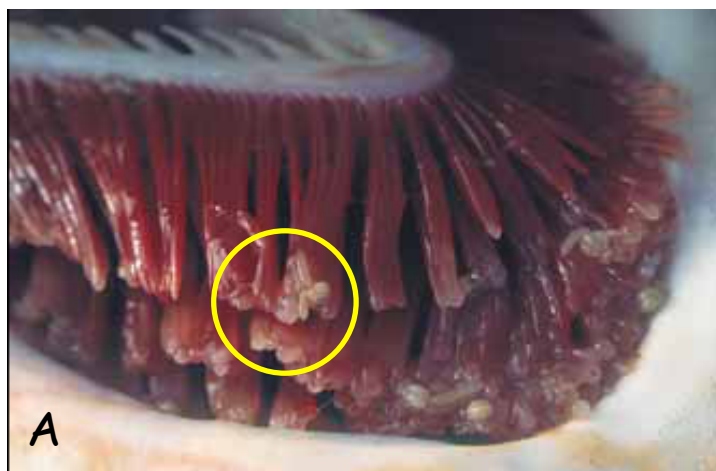
A-2.2

Copepods



Lake Trout

1. Where are they found ?



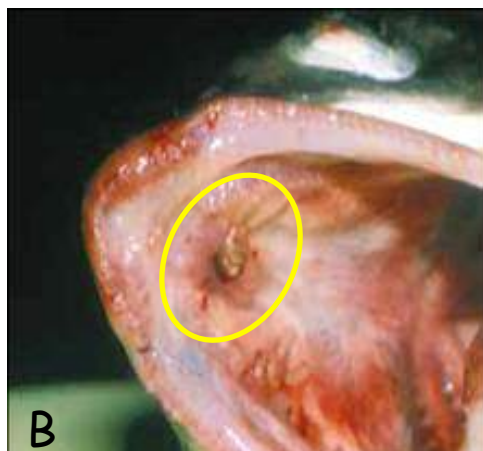
A

Photo Credit: D.B. Stewart

- Copepods are found attached to the gills (Photo A), to skin on the inside of the mouth (Photo B and C) or to the fins.

2. What are they ?

- Copepods are small water-living animals that live on fish.
- Adult copepods attach themselves permanently to the fish.



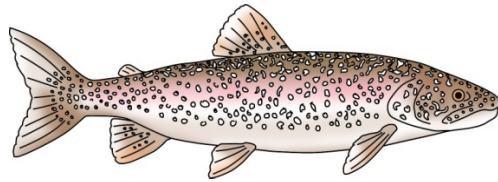
B

Photo Credit: L.M.J. Bernier



C

Photo Credit: Manon Simard; Makivik Corporation



Copepods

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

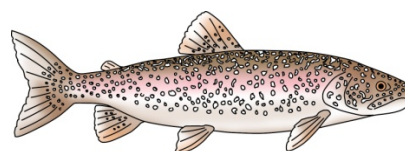
5. Is it safe to feed to dogs ?



For more information go to [H-A.2](#)

A-2.3

Fungus in fish (Internal Fungal Infection)



Lake Trout



1. Where is it found ?

- Fungus may be taken into the fish as it fills its swim bladder with air.
- In rare cases, the fungus may grow, spread and infect many areas in the body.

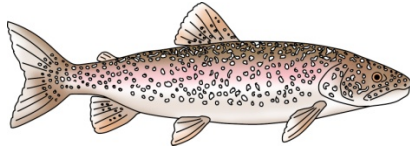
Photo Credit: DFO

- This photo shows patches of fungus (like bread mould) found inside a fish.



2. What is it ?

- This is a fungus that is normally found on plants but can get into fish.



Fungus in fish (Internal Fungal Infection)

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

WARNING

It is not recommended to eat fish that looks unusually sick and has fungus on the inside.

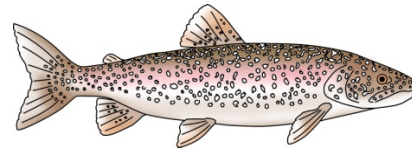
5. Is it safe to feed to dogs ?

It is not recommended to feed dogs anything that is not safe for humans to eat.



For more information go to [H-A.3](#)

A-2.4



Lake Trout

Roundworms



1. Where are they found ?

- Roundworms can be found on any organ in the body cavity and also in the flesh.

Photo Credit: D.B. Stewart

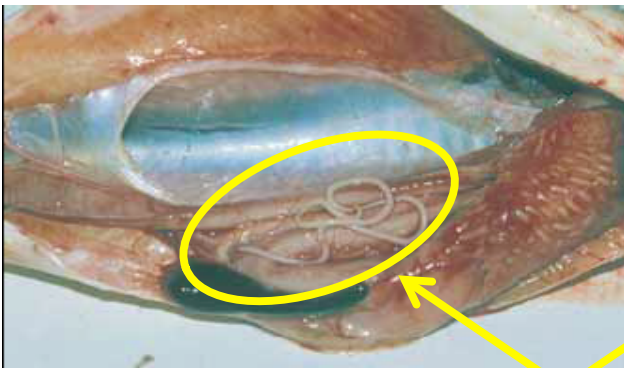
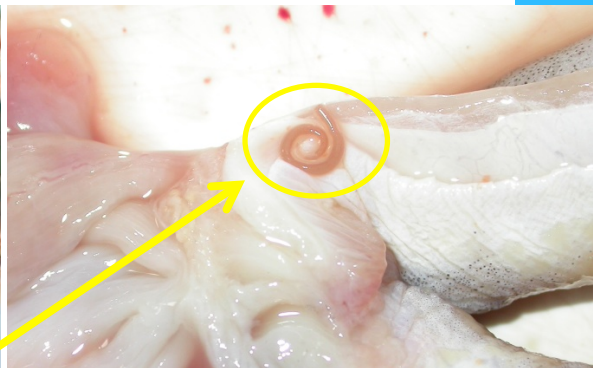


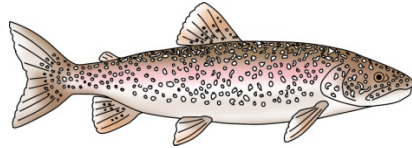
Photo Credit: Manon Simard;
Makivik Corporation



Roundworms in the body cavity.

2. What are they ?

- Roundworms are parasitic worms.
- Adults can be quite large (up to 20 cm in length).
- Immature roundworms are found coiled.
- Roundworms may be cream, brown or red in colour.



Roundworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

CAUTION

Human health risks are uncertain.

Please read “Human health concerns” in section H-A.4

5. Is it safe to feed to dogs ?

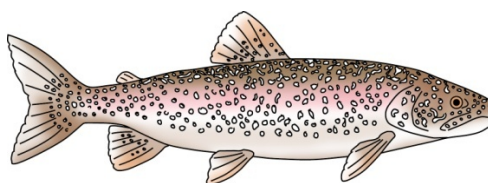
Please read “Safety of the meat for dogs” in section H-A.4



For more information go to [H-A.4](#)

A-2.5

Adult Tapeworms



Lake Trout



1. Where are they found ?

- Adult tapeworms are found in the intestine of fish.

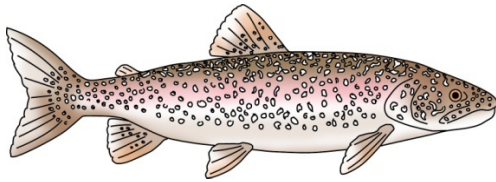
Photo Credit: D.B. Stewart



- This photo shows an adult tapeworm from the intestine of a lake trout.
- Some worms can grow as long as 40 cm.

2. What are they ?

- These are parasitic worms that live in the intestine of fish.
- They are fairly common.



Adult Tapeworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

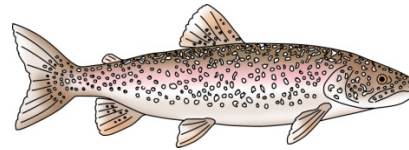
5. Is it safe to feed to dogs ?



For more information go to [H-A.5](#)

A-2.6

Immature Tapeworms

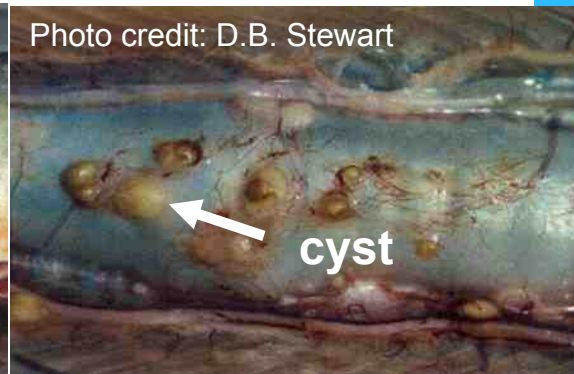
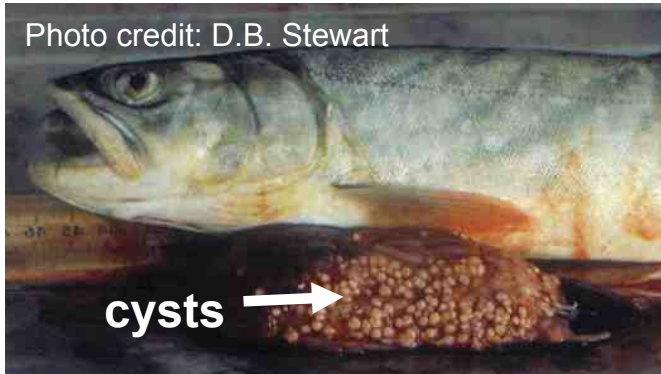


Lake Trout



Fish

1. Where are they found ?



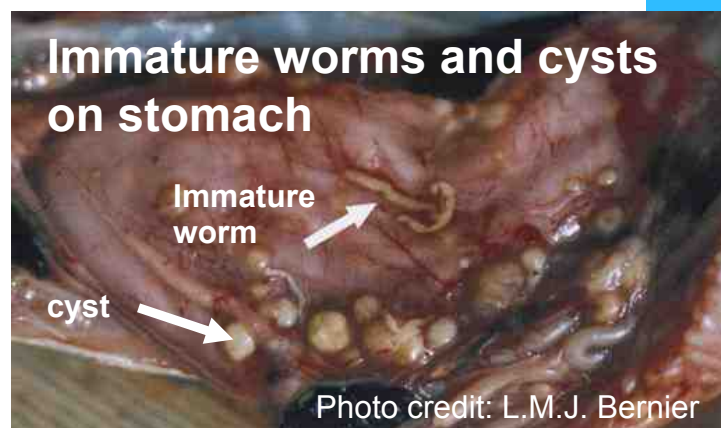
- Within the gut cavity and on the surface of organs.

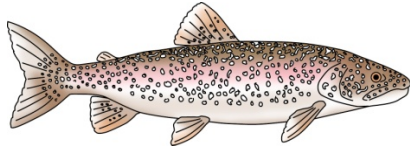
- Attached to the swim bladder.

- Immature tapeworms can live within a sac (cyst) or they may live free (not within a cyst) in the fish.

2. What are they ?

- Immature tapeworms are young worms that mature into adult worms within animals, such as seals (see seal tapeworms in sections C-1.6 and C-2.6), which feed on fish containing these immature worms.





Immature Tapeworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

It is recommended to cook*
the fish well before eating it.

5. Is it safe to feed to dogs ?

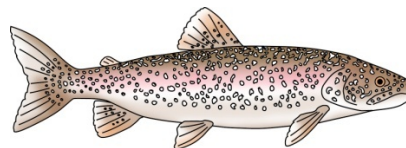
It is recommended to cook*
the fish well before feeding it
to dogs.

* Cooking, as well as freezing,
will kill most worms.

For more information go to [H-A.5](#)

A-2.7

Thorny-headed Worms



Lake Trout



1. Where are they found ?

- Thorny-headed worms appear most often in the intestine of the fish, but can sometimes occur in the stomach.

Photo Credit: L.M.J. Bernier

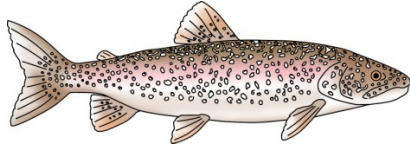
- This photo shows adult thorny-headed worms attached to the intestine of a lake trout.



- Sores may occur at the point of attachment.

2. What are they ?

- These are parasitic worms that live in the intestine of fish.
- Worms can grow to be 1 to 3 cm in length.
- They are fairly common.



Thorny-headed Worms

3. Is it safe to clean the fish ?

SAFE

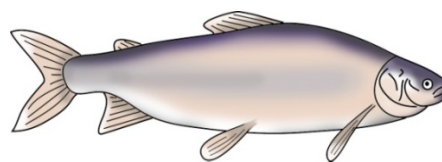
4. Is it safe to eat the fish ?

SAFE

5. Is it safe to feed to dogs ?



For more information go to [H-A.6](#)

A-3.1

Whitefish

Cuts, Scrapes and Scars**1. Where are they found ?**

- Cuts, scrapes and scars can occur anywhere on the body.

2. What are they ?

- Cuts, scrapes and scars can be caused by many different things such as gill nets and low water levels in spawning areas.

Photo Credit: J.D. Reist

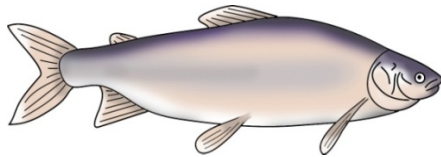


Gill net damage

Photo Credit: D.K. McGowan



A healed scar



Cuts, Scrapes and Scars

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

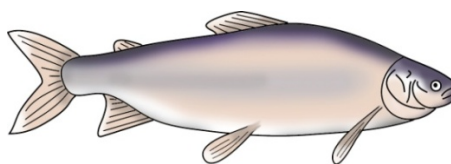
5. Is it safe to feed to dogs ?



For more information go to [H-A.1](#)

A-3.2

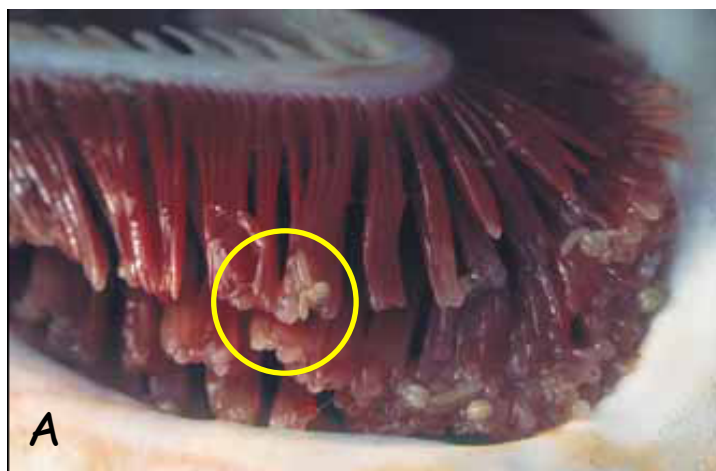
Copepods



Whitefish



1. Where are they found ?



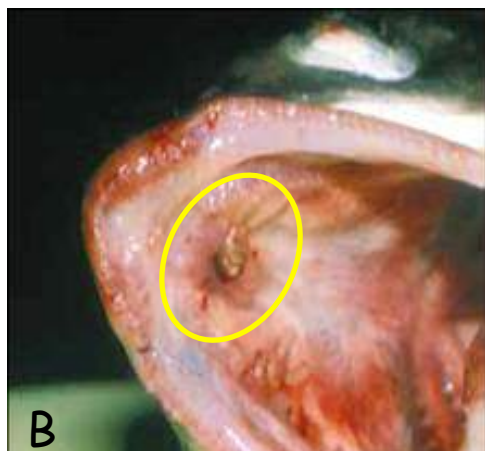
A

Photo Credit: D.B. Stewart

- Copepods are found attached to the gills (Photo A), to skin on the inside of the mouth (Photo B and C) or to the fins.

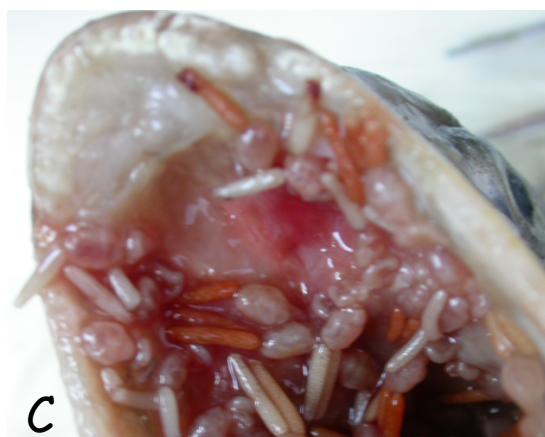
2. What are they ?

- Copepods are small water-living animals that live on fish.
- Adult copepods attach themselves permanently to the fish.



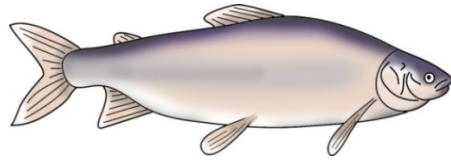
B

Photo Credit: L.M.J. Bernier



C

Photo Credit: Manon Simard; Makivik Corporation



Copepods

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

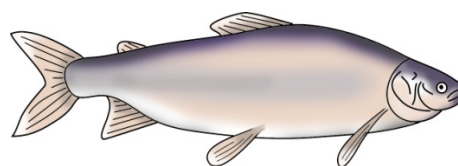
5. Is it safe to feed to dogs ?



For more information go to [H-A.2](#)

A-3.3

Fungus in fish (Internal Fungal Infection)



Whitefish



1. Where is it found ?

- Fungus may be taken into the fish as it fills its swim bladder with air.
- In rare cases, the fungus may grow, spread and infect many areas in the body.

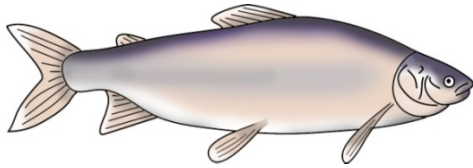
Photo Credit: DFO

- This photo shows patches of fungus (like bread mould) found inside fish.



2. What is it ?

- This is a fungus that is normally found on plants but can get into fish.



Fungus in fish (Internal Fungal Infection)

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

WARNING

It is not recommended to eat fish that looks unusually sick and has fungus on the inside.

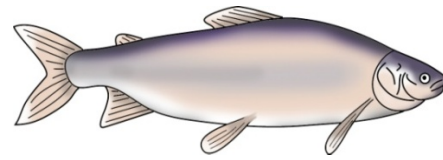
5. Is it safe to feed to dogs ?



It is not recommended to feed dogs anything that is not safe for humans to eat.

For more information go to [H-A.3](#)

A-3.4



Whitefish



Roundworms

1. Where are they found ?

- Roundworms can be found on any organ of the body and also in the flesh.

Photo Credit: D.B. Stewart

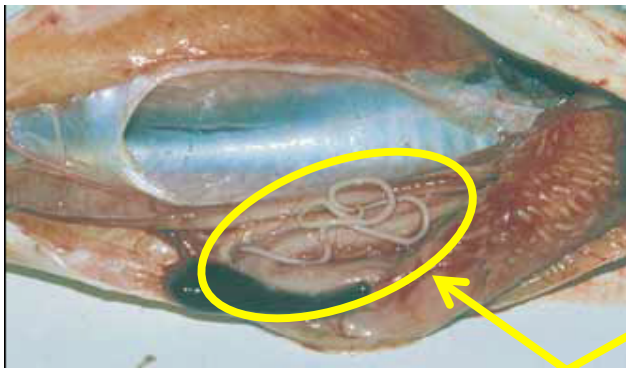
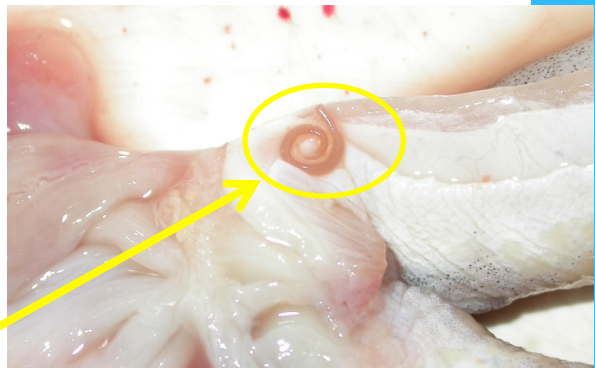


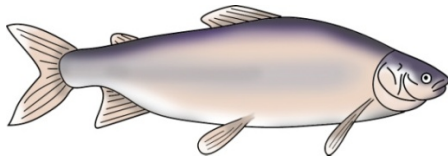
Photo Credit: Manon Simard;
Makivik Corporation



Roundworms in the body cavity.

2. What are they ?

- Roundworms are parasitic worms.
- Adults can be quite large (up to 20 cm in length).
- Immature roundworms are found coiled.
- Roundworms are cream, brown or red in colour.



Roundworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

Human health risks are uncertain.

Please read “Human health concerns” in section H-A.4

CAUTION

5. Is it safe to feed to dogs ?

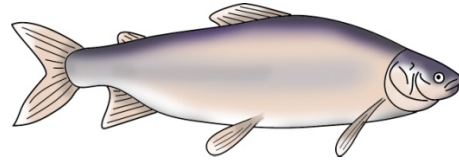
Please read “Safety of the meat for dogs” in section H-A.4



For more information go to [H-A.4](#)

A-3.5

Adult Tapeworms



Whitefish



1. Where are they found ?

- Adult tapeworms are found in the intestine of fish.

Photo Credit: D.B. Stewart

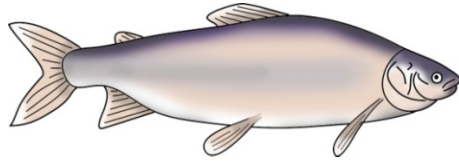
- This photo shows an adult tapeworm from the intestine of a fish.



- Some worms can grow as long as 40 cm.

2. What are they ?

- These are parasitic worms that live in the intestine of fish.
- They are fairly common.



Adult Tapeworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

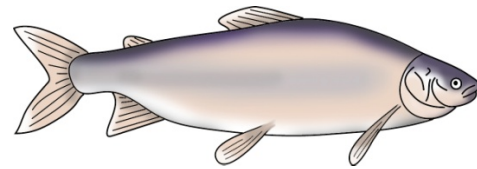
5. Is it safe to feed to dogs ?



For more information go to **H-A.5**

A-3.6

Immature Tapeworms

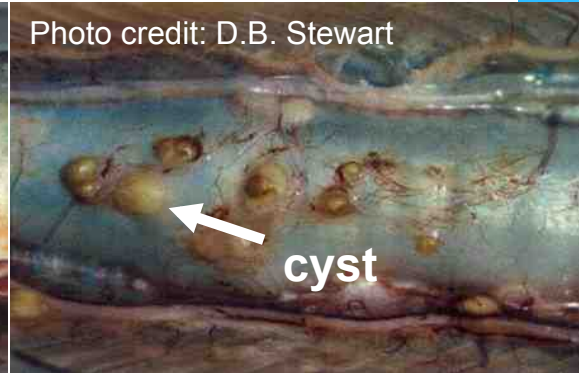
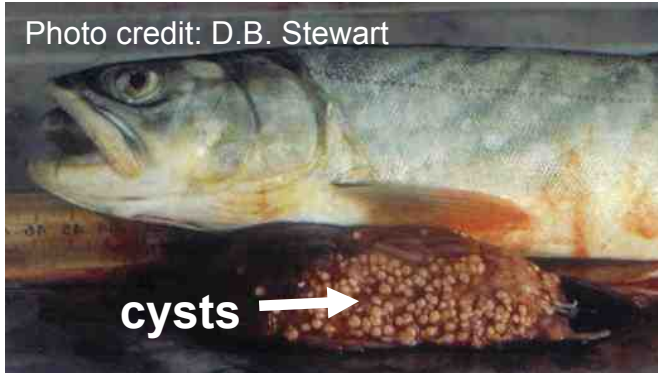


Whitefish



Fish

1. Where are they found ?



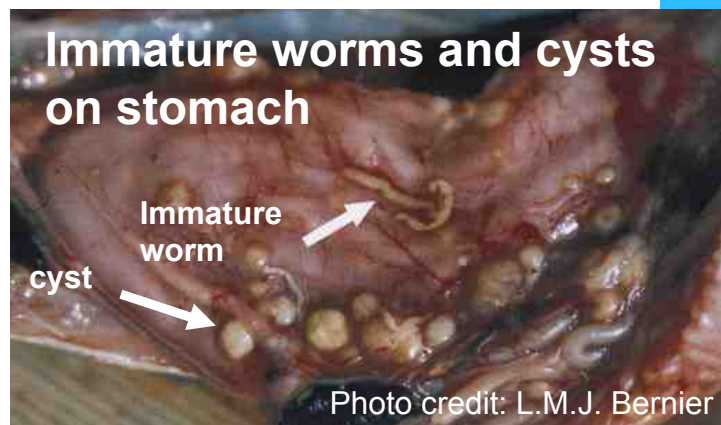
- Within the gut cavity and on the surface of organs.

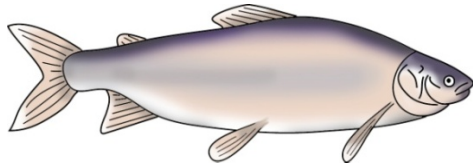
- Attached to the swim bladder.

- Immature tapeworms can live within a sac (cyst) or they may live free (not within a cyst) in the fish.

2. What are they ?

- Immature tapeworms are young worms that mature into adult worms within animals, such as seals (see seal tapeworms in sections C-1.6 and C-2.6), which feed on fish containing these immature worms.





Immature Tapeworms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

It is recommended to cook* the fish well before eating it.

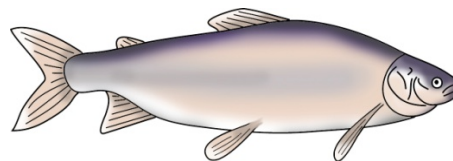
5. Is it safe to feed to dogs ?

It is recommended to cook* the fish well before feeding it to dogs.

* Cooking, as well as freezing, will kill most worms.

For more information go to [H-A.5](#)

A-3.7



Whitefish



Thorny-headed Worms

1. Where are they found ?

- Thorny-headed worms appear most often in the intestine of the fish, but can sometimes occur in the stomach.

Photo Credit: L.M.J. Bernier

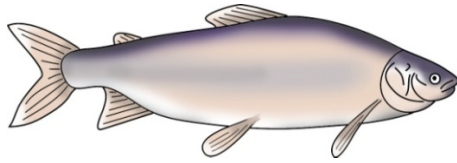
- This photo shows adult thorny-headed worms attached to the intestine of a fish.



- Sores may occur at the point of attachment.

2. What are they ?

- These are parasitic worms that live in the intestine of fish.
- Worms can grow to be 1 to 3 cm in length.
- They are fairly common.



Thorny-headed Worms

3. Is it safe to clean the fish ?

SAFE

4. Is it safe to eat the fish ?

SAFE

5. Is it safe to feed to dogs ?



For more information go to **H-A.6**