

Sendung mit der Maus

Do ducks get cold feet?

- 10:00:01 – 10:00:05x In Winter, the frozen pond is a runway.
At least for ducks.
- 10:00:06 – 10:00:09 But don't they get cold feet?
It must be freezing cold.
- 10:00:10x – 10:00:14 The ducks don't seem to mind the cold at all.
- 10:00:16 – 10:00:18x And here are Herbert's feet.
- 10:00:19 – 10:00:23 It is so cold
that his feet are hurting.
- 10:00:25x – 10:00:27x The ducks don't mind the cold.
- 10:00:28 – 10:00:32 They waddle slowly over the frozen pond.
- 10:00:39x – 10:00:43 Their thick plumage
protects them from the cold-
- 10:00:44 – 10:00:46 as does their layer of fat.
- 10:00:47x – 10:00:50x They are well-padded, like in a quilted jacket.
- 10:00:51x – 10:00:54x But what about the parts of the body
that stick out?
- 10:00:55 – 10:00:57 Like the feet?
- 10:00:57x – 10:01:02 Neither padding nor feathers
protect them from the cold.
- 10:01:04x – 10:01:09x **Herbert wants to solve the mystery
with a thermographic camera.**
- 10:01:10 – 10:01:14 This camera shows
the warm parts of the body.
- 10:01:14x – 10:01:16x Red is hot-
- 10:01:17 – 10:01:21 green is a bit colder
and blue is very cold.
- 10:01:25x – 10:01:30 When Herbert films the ducks
with this camera-
- 10:01:30x – 10:01:32x it looks like that:

10:01:33 – 10:01:35x The duck's head is quite warm.

10:01:36 – 10:01:40 But the feet are as blue as the ice
on which the duck is standing.

10:01:40x – 10:01:43 So the feet are very cold.

10:01:47x – 10:01:51 This has one huge advantage.

10:01:51x – 10:01:55x If ducks had warm feet,
the ice would melt-

10:01:56 – 10:01:58x and they would fall into the water.

10:02:06 – 10:02:10 When we humans have cold feet,
we put on socks.

10:02:11 – 10:02:14x Would that be of use to ducks?
Schnitt Tiny duck socks?

10:02:16 – 10:02:18 No! Certainly not.

10:02:19 – 10:02:21x Ducks seem to be comfortable
with their cold feet.

10:02:22x – 10:02:25 For ducks have a very special body heating.

10:02:26 – 10:02:31 On its way to the feet
the warm blood is cooled down.

10:02:32x – 10:02:37 These two hoses exemplify
the blood vessels in the duck's foot.

10:02:37x – 10:02:39 They are very close.

10:02:39x – 10:02:43 The blood that runs
through the red vessel to the feet-

10:02:43x – 10:02:45x is cooled by the cold blue vessel.

10:02:46 – 10:02:48x On the way back
the blood in the blue vessel-

10:02:49 – 10:02:53 is heated by the warm red one.
It's a kind of heat exchanger.

10:02:54 – 10:02:58 When the foot cools down too much,
the vessels widen-

10:02:58x – 10:03:01 so that more warm blood runs through them.

10:03:02 – 10:03:06 Humans don't have that ability.
That's why we have to keep moving-

10:03:06x – 10:03:09 not to be cold.

10:03:10x – 10:03:13x Ducks just waddle a little or flap their wings-

10:03:14 – 10:03:18 and they are warm,
even though they have cold feet.