



STATISTICS OF OSPREY DIVES AT POHTIOLAMPI IN SUMMER 2012

In spring 2010, we found that Pohtiolampi Osprey pool is suitable for gathering information about ospreys' prey dives into water. For this purpose, a webcam was set up to record activities at the nutrition pool. The webcam recorded activities at the nutrition pool in every 3-4 seconds from dawn to dusk. In spring 2011 we installed two webcams on the wall of the bird hide. Both cameras were in use from April 1 to September 30. The first camera took daily still-images in every 3-4 seconds. The other camera was for live broadcasting purposes. The live video stream was broadcasted to our website via a 3G network and **Bambuser service**. In autumn 2011, all images and videos were studied and the dives of ospreys were registered. See Statistics of osprey dives [in 2010](#) and [in 2011](#).

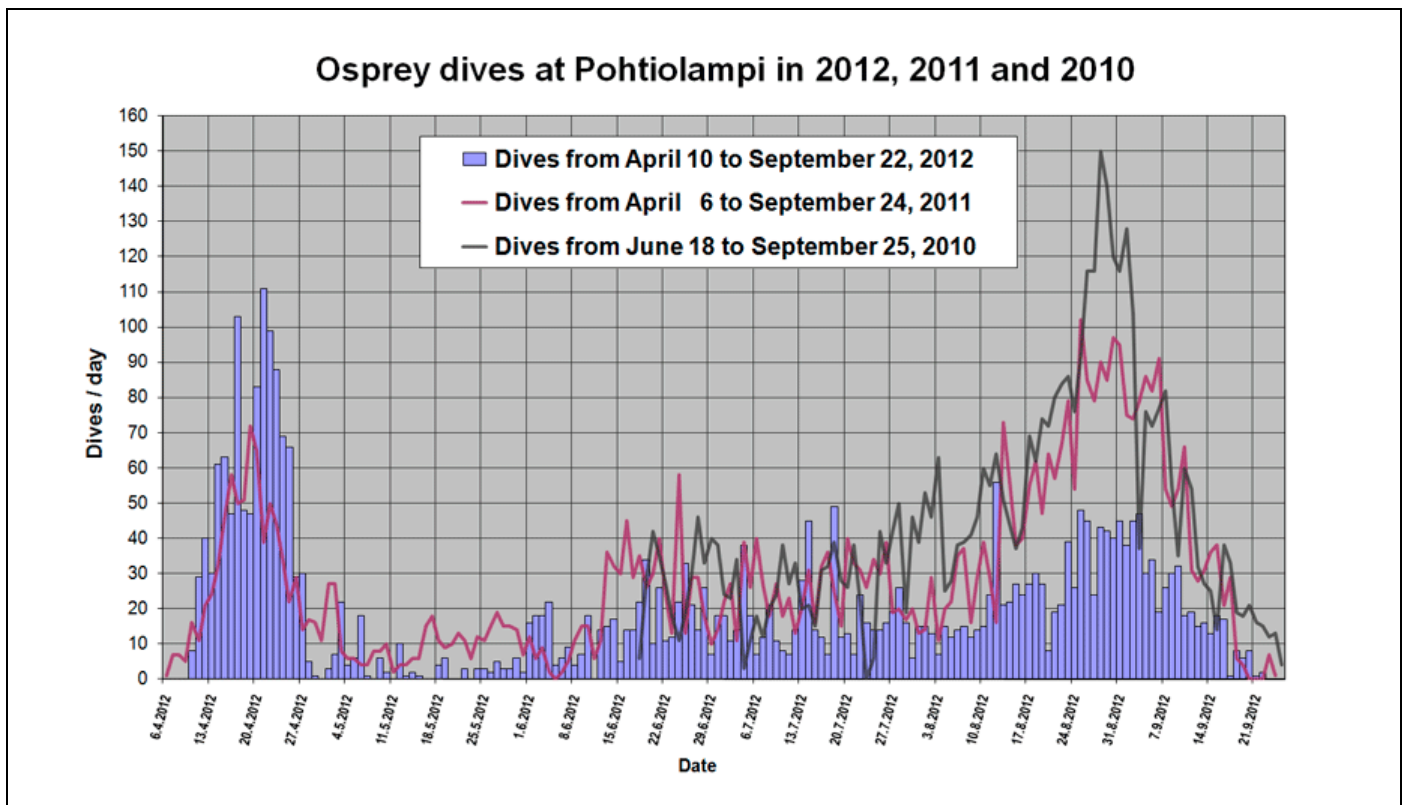
In 2012 the webcam was set up in March 25 and it was in use until the end of September. The live video was broadcasted and the number of dives were registered as in 2011. The webcam setup consisted of Logitech's Webcam Pro 9000 webcam, ASUS laptop and DNA's Sierra Wireless mobile net stick. The system was running through Adobe Flash Media Live Encoder 3.2 software (Live video broadcasting). The video stream has proved to be very popular among the public as the traffic at Osprey Foundation's website doubled during the summertime. Between April 1 to September 30, there have been about 111 000 views at the video page of the website and unique visitors from 85 countries. About 70 % of visitors have been Finnish- and 30 % English-speaking. On the most popular days, there have been about 1800 page views.

Results

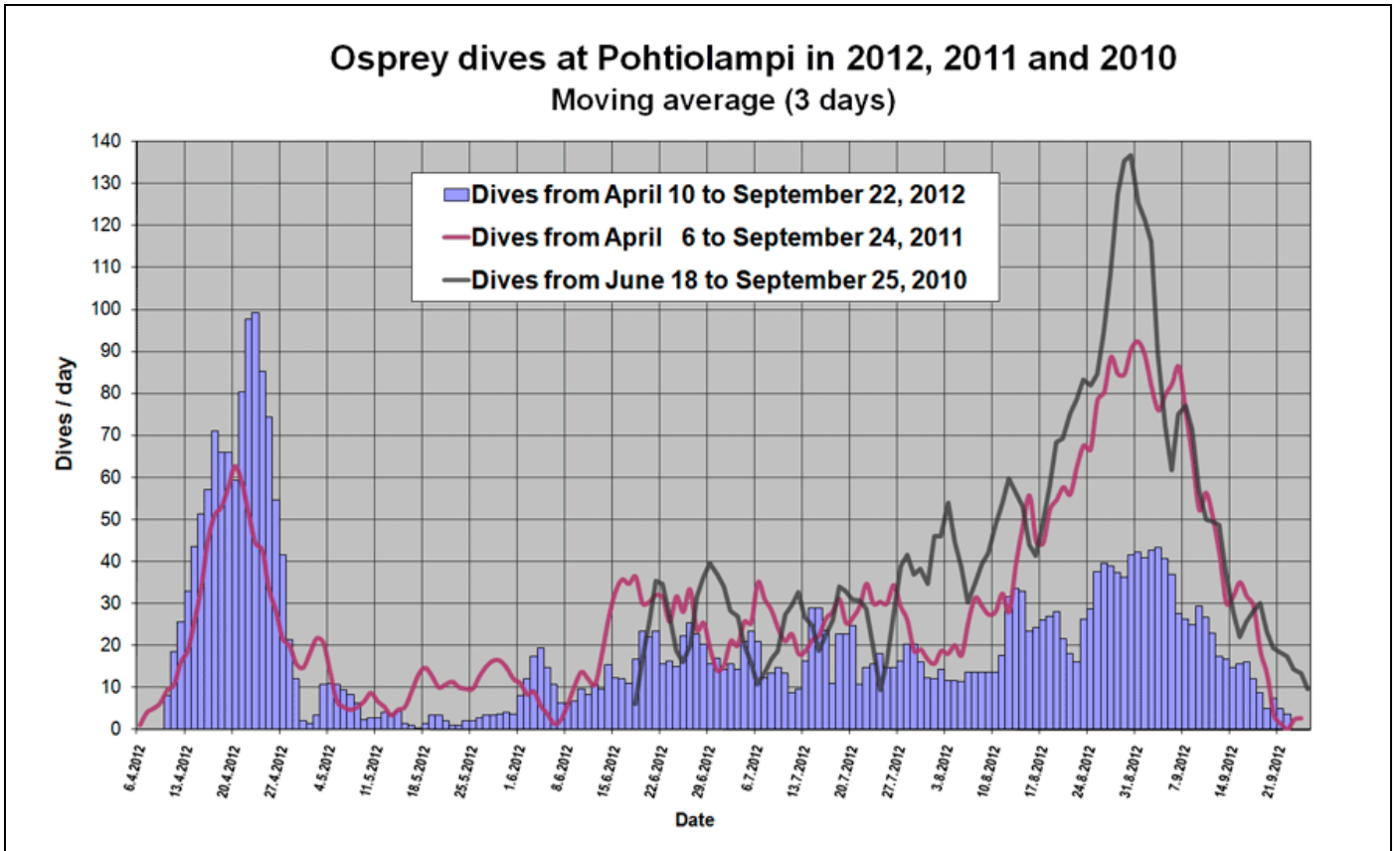
In April 2012 the number of dives was 1057, about 43% more than in April 2011. In the end of April the number of Ospreys sank very rapidly. The reason was the worst spring flood ever, which began on April 24 and lasted until the end of May. During the flood Ospreys avoided the area. The flood also caused damage to the photography hides and other structures. Flood damage repairs caused interference in the pool area and contributed to the reduction in visits to the Ospreys. In May-September 2012 there were fewer dives as in previous years. The total number of dives in 2012 was 3 402, about 32% lower than in 2011.

	April	May	June	July	August	September	Total
6.4. - 22.9.2011	741	331	605	788	1 622	942	5 029
10.4. - 24.9.2012	1 057	123	457	532	790	443	3 402
Change from 2011 to 2012	316	-208	-148	-256	-832	-499	-1 627
Change from 2011 to 2012 (%)	43 %	-63 %	-24 %	-32 %	-51 %	-53 %	-32 %

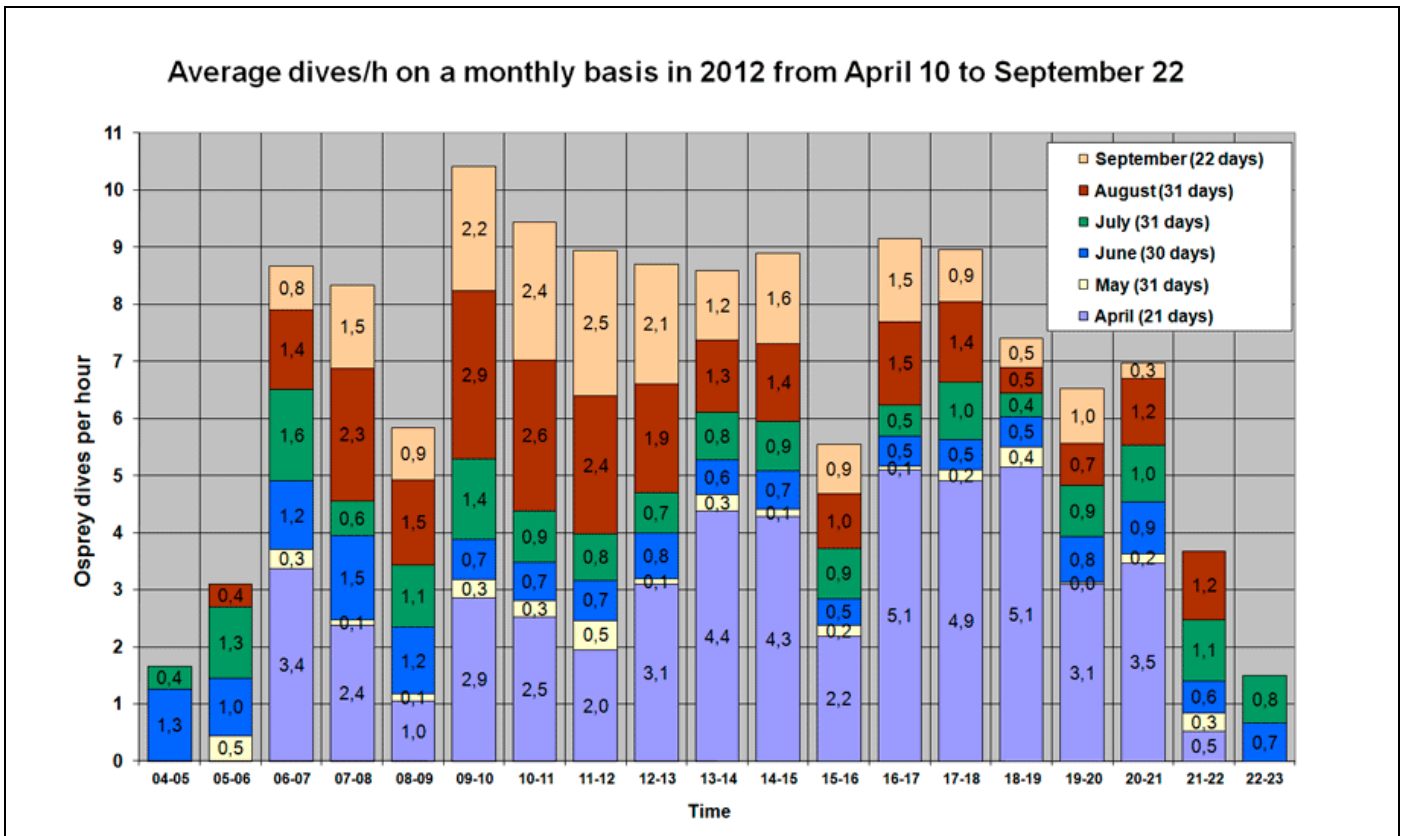
The figure below shows the osprey dives recorded on a daily basis. For comparison, the figure also shows the dives in 2010 and in 2011. This year's daily peak, 111 dives, occurred on April 21. Dives began on April 10 and ended on September 22, when all birds had begun their fall migration.



The figure below presents the same content using moving average of 3 days. With this method, the differences between the years become more illustrative. The low peak in August was less than half of the peak in the previous two years.



The next figure shows the monthly differences in the number of osprey dives per hour. In April 2012 Ospreys dived mostly in the afternoon at 16 -19. In late summer (August-September), birds dived most at 9 - 12. Throughout the season the peak hour was at 9-10, with the total average more than 10 dives/h.



Summary

The Osprey dives in summer 2012 can be divided into four phases:

Spring Migration, April 10 onwards

In April, the number of Osprey dives at Pohtiolampi increased rapidly. The peak was on April 21 when there were 111 dives. The Osprey pool was ice-free in early April, while all other lakes in Southern Finland were still ice covered. The birds know where to get good fish during their spring migration! The average of Osprey dives during the period was 50 dives/day (in 2011 the average was 30 dives/day).

Nesting phase, May 4 onwards

Due to the bad spring flood the nesting phase was a very quiet period at Pohtiolampi. There were max 10 dives per day, with an average of 4 dives/day (in 2011 the average was 11 dives/day).

Hatchery phase, ca. June 13 onwards

The need for food increased, as the birds sought to feed their chicks throughout the day. The average number of dives per day was 17 (26 dives/day in 2011).

Preparing for autumn migration, ca. August 6 onwards

Ospreys need a lot of food when preparing for the autumn migration. This phase has been the busiest period at Pohtiolampi, but not in 2012. The number of dives was 15-50 per day, with an average of 24 dives per day (in 2011 49 dives/day).

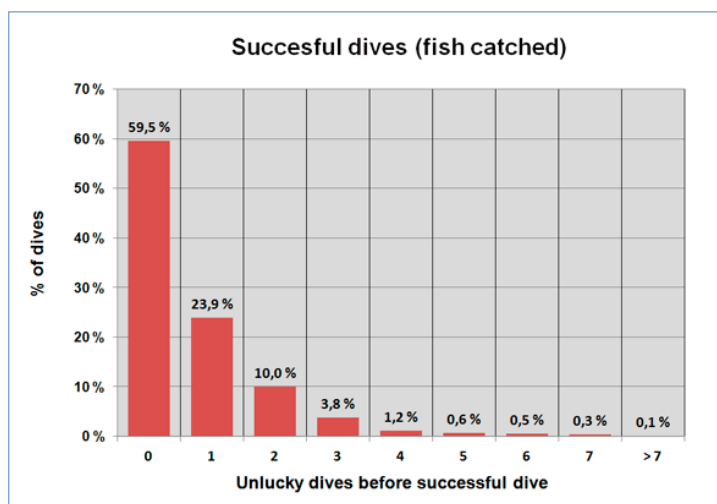
Successful dives

When studying the dives from videos we tried also to estimate, how often Ospreys could catch the fish. So, we counted how many unsuccessful dives occurred before the final, successful dive. The analysis included more than 1500 dives.

The results are available on the diagram on the right side.

Ospreys managed to get a fish on the first try in 60% of the dives, 2 dives were required in 24% of cases, 3 dives were required in 10% of dives etc.

Apparently Pohtiolampi pool is easier place for ospreys than natural waters.



In conclusion:

The number of dives in 2012 was about 32% less than a year ago. This may be due to the following reasons:

- During the spring flood ospreys avoided to visit Pohtiolampi,
- Repair the flood damages caused disturbances in the pool area in June-July 2012,
- For some reason the fish moved in natural waters more than usual in shallow waters, and were easy prey for birds. For the same reason, only few grey herons were seen at Pohtiolampi,
- During the summer there was an "troublemaker" Osprey, which thought that the area is his territory and sought to expel the other birds away. This reduced the number of dives.