

AP2/2015 Shot Head

Oral Hearing Paper provided

by

John Murphy

Salmon Watch Ireland



## Leonard, Brona

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**From:** John Murphy [salmonwatchireland@gmail.com]  
**Sent:** 20 September 2017 15:48  
**To:** Alab, Info  
**Subject:** Re: Bantry Bay Oral Hearing  
**Attachments:** Citation.txt

Hi MARY

Attached citation from Salmon Watch Ireland.

John Murphy

On Thu, Sep 14, 2017 at 10:41 AM, Alab, Info <[Info@alab.ie](mailto:Info@alab.ie)> wrote:

Dear John

Yes a projector will be available.

Regards

Mary

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**From:** John Murphy [mailto:[salmonwatchireland@gmail.com](mailto:salmonwatchireland@gmail.com)]  
**Sent:** 14 September 2017 10:21  
**To:** Alab, Info  
**Subject:** Bantry Bay Oral Hearing

Hi Mary,

I am just inquiring if a projector will be made available in Bantry for the 19/20 September. You might revert ASAP.

Kind Regards

John Murphy

Director

Salmon Watch Ireland

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Director  
Salmon Watch Ireland

Citation

Provider: John Wiley & Sons, Ltd  
Content:text/plain; charset="UTF-8"

TY - JOUR  
AU - Goodwin, Jill C. A.  
AU - Andrew King, R.  
AU - Iwan Jones, J.  
AU - Ibbotson, Anton  
AU - Stevens, Jamie R.  
TI - A small number of anadromous females drive reproduction in a brown trout (*Salmo trutta*) population in an English chalk stream  
JO - Freshwater Biology  
JA - Freshw Biol  
VL - 61  
IS - 7  
SN - 1365-2427  
UR - <http://dx.doi.org/10.1111/fwb.12768>  
DO - 10.1111/fwb.12768  
SP - 1075  
EP - 1089  
KW - microsatellite  
KW - parental investment  
KW - *Salmo trutta*  
KW - sea trout  
KW - stable isotope analysis  
PY - 2016  
AB -

\* Brown trout, *Salmo trutta*, exhibit one of the most highly variable and polytypic life-history strategies of all salmonids. Populations may be wholly freshwater-resident or almost exclusively migratory (anadromous), or fish of a single population may exhibit varying proportions of the two life-history strategies. Both anadromous and freshwater-resident trout freely interbreed to produce fertile offspring.

\* We quantify maternal reproductive provisioning by anadromous and freshwater-resident brown trout to their offspring and assess relative parental fitness (in terms of number, size and time of emergence of offspring). Newly emerged juvenile trout (fry) were sampled ( $n = 119$ ) over the emergence period in March–April 2007 in a lowland English chalk stream; samples of adult trout [anadromous (6F : 12M) and freshwater-resident (22F : 56M)], river-resident trout parr and macroinvertebrate prey were also collected.

\* Using a novel combination of stable isotope analysis and microsatellite genotyping we demonstrate the overwhelming contribution of anadromous parents (both female and male) to fry production, despite the obvious presence and numerical dominance of resident adults. We unambiguously identify the maternal origins of 78% of juveniles sampled and show that maternal reproductive contribution to juvenile production in the river was higher for anadromous females (76%) than freshwater-resident fish (2.5%). Offspring of anadromous females emerged earlier and at a larger body size than offspring of resident females. Similarly, while the relative contribution of resident males (37%) was higher than that of resident females, anadromous males sired considerably more offspring (63%) than resident males. This is the first study of its kind to accurately assess the reproductive contribution of anadromous male trout.

\* Overall, this study suggests that anadromous maternal traits provide offspring with an adaptive advantage and greater fitness in early ontogeny, and that a small number of anadromous females (six of 96 adults sampled) are the main drivers of reproduction in this system.

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