

Freshwater Matters is a monthly electronic bulletin of the most recent freshwater news from around the world, compiled by the Freshwater Biological Association (FBA). It includes updates of what is happening at the FBA and ways to get involved.

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What's happening at the FBA?

Bill Brierley accepts the post of Chief Executive of the Freshwater Biological Association

We are delighted to announce that Dr Bill Brierley has accepted the post of Chief Executive of the Freshwater Biological Association. Bill is currently an Evidence Advisor with the Environment Agency where he leads on monitoring strategy and freshwater science management. Bill will take up his post early in 2015 and we are delighted to welcome him into his new role.

Freshwater Reviews special issue - call for papers on the EU Water Framework Directive

Freshwater Reviews is delighted to announce the intension to publish its first special issue on the topic of the EU Water Framework Directive in December 2015. Potential authors are invited to submit review papers or outlines for reviews now, for consideration by the editor. *Freshwater Reviews* is a high-quality, peer-reviewed journal publishing both online and in print. Potential authors can find additional information about style guidelines and submission on our "For Authors" page here <https://www.fba.org.uk/journals/index.php/FRJ/information/authors>, or contact the editor, Prof. Colin S. Reynolds at creynolds@fba.org.uk to discuss your submission.

FBA 2015 course programme now available

The FBA offers a range of courses developed for both enthusiasts and professionals including a wide range of identification courses on freshwater invertebrates. These include our first course in March on general freshwater invertebrate identification and our accredited course in October 'Invertebrate identification for biotic assessment (including examination)'. Other identification and specialist courses include a number of fish health and disease courses, identifying macroalgae, Chironomid Pupal Exuvial Technique (CPET), identifying chironomid larvae, entomology for anglers level 1, level 2 and level 3 and River InVertebrate Prediction And Classification System (RIVPACS)/River Invertebrate Classification Tool (RICT) bioassessment training. We also have a new course for 2015 - introduction to phytoplankton. For more information and to book a place, please contact us at events@fba.org.uk. For a full course programme and downloadable booking form, please visit <http://www.fba.org.uk/fba-training-courses>.

Latest issue of Inland Waters now published

The latest issue of *Inland Waters - Journal of the International Society of Limnology* (Vol 4(4)) has now been published. A list of contents and abstracts can be viewed online at <https://www.fba.org.uk/journals/index.php/IW/issue/>

A vertical photograph of a waterfall cascading down a rocky, moss-covered cliff in a lush green forest. The water is white and frothy as it falls, surrounded by dense green foliage and trees.

[view/119](#). Full-text articles can be downloaded by subscribers and SIL members. If you do not currently subscribe or are not a SIL member and wish to have access to the journal, please either take out an individual subscription (contact the Denise Johnson at siloffice1922@gmail.com) or recommend the journal to your library at <https://www.fba.org.uk/journals/index.php/IW/user/recommendLibrary>.

Clear Waters Oral History Project continues its tour

On 10th November, former Clear Waters Project Officer Gary Rushworth gave a talk at the Lancaster Maritime Museum. The Clear Waters Exhibit is at the Museum until the 4th of January, when it moves to the Carlisle Records Centre on the 7th of January. For more information or to browse the fascinating information, videos, interviews and pictures go to <http://www.clearwaters.org.uk/>.

New research published by the FBA

A new research paper has been published by FBA Honorary Research Fellow Malcolm Elliott entitled "The European medicinal leech *Hirudo medicinalis* L.: Morphology and occurrence of an endangered species". For more information please go to [dx.doi.org/10.3897/zse.90.8715](https://doi.org/10.3897/zse.90.8715).

This month's articles

Evolutionary constraints revealed in diversity of fish skulls

The skull shape of most fish is limited by structural requirements for suction feeding according to research published this month in *Nature Communications*. Using eels as a study group, researchers from UC Santa Cruz mapped out the evolutionary relationships between the group in order to understand factors that influence morphological diversity. They found that a shift from suction feeding to biting led to a huge diversification in skull shape.

<http://www.natureworldnews.com/articles/10400/20141117/evolution-fish-limited-feed.htm>

Understanding of global freshwater fish and fishing too shallow, scientists say

The importance of inland capture fisheries is grossly underestimated according to an article published this month in the journal *Global Food Security*. As a result, decisions about food security and water use often fail to take into account the importance of rivers and lakes for fish and the people whose livelihoods are dependent on them.

http://www.eurekalert.org/pub_releases/2014-11/msu-uog110514.php

Rare Bewick's swan numbers show 'alarming crash'

The UK's population of Bewick's swan has crashed by a third over the last twenty years according to figures released by the Wildfowl and Wetlands Trust. The decline is due to both preventable deaths from causes such as lead poisoning and illegal hunting, and from a failure of the species to breed in sufficient numbers.

<http://www.bbc.co.uk/news/uk-england-gloucestershire-29785087>

Newt flesh fungus 'brought by pets'

A report published in *Science* this month suggests that a skin-eating fungus threatening salamanders and newts across Europe probably arrived on pet amphibians imported from Asia. The team of researchers suggest that the fungus has coexisted with related Asian species for the last 30 million years, however it is deadly for their European relatives.

<http://www.bbc.co.uk/news/science-environment-29831384>

Synthetic fish measures wild ride through dams

More than half of the renewable energy generated in the USA in 2013 came from hydropower. Now a synthetic fish is helping hydropower facilities become more fish-friendly by providing scientists with information about the forces fish feel as they pass through the structures.

http://www.eurekalert.org/pub_releases/2014-11/dnnl-sfm110414.php

Wrangling data flood to manage the health of streams

Understanding the health of river system requires integrating data across wide geographic areas to understand pressures on river systems far upstream. Now a team from Michigan State University have developed a technique that allows researchers and conservation managers to deal more effectively with the huge amounts of data required and so effectively manage the multiple pressures on river systems.

http://www.eurekalert.org/pub_releases/2014-11/msu-wdf110214.php

Female frogs modify offspring development depending on reproduction date

A study published this month in the journal *Ecology* has found that female frogs have the ability to adjust the growth rate and development of their offspring depending on the date of reproduction. It is thought that this ability enables the frog to deal with inter-annual variation in climate conditions that may influence the start of the breeding season.

http://www.eurekalert.org/pub_releases/2014-10/f-sf-ffm103014.php

Fish 'personality' linked to vulnerability to angling

A study examining the behaviour of brown trout under a range of laboratory and natural conditions has found that angling pressure modifies the heritable behavioural traits of the fish favouring cautious individuals.

http://www.eurekalert.org/pub_releases/2014-10/uof-f1102814.php

Beavers on river Otter in Devon could stay free

Six beavers living on the river Otter in Devon could be allowed to remain in the wild if they are found to be free of disease. Initially the government had planned to capture the animals and re-home them in captivity however following a local campaign it appears that DEFRA may allow them to remain in their adopted home.

<http://www.bbc.co.uk/news/uk-england-devon-30043619>

Rare look inside tiny mouth wins 'small world' photo contest

A photograph of a rotifer opening its mouth to feed has won this year's Nikon Small World competition. Rogelio Moreno, a self-taught microscopist, sat for hours to capture the shot that shows the open mouth of the rotifer surrounded by a crown of cilia used to sweep water inwards.

<http://news.yahoo.com/rare-look-inside-tiny-mouth-wins-small-world-170506331.html>

Please forward this bulletin to any of your colleagues who may be interested!

