Starting Capital for New Ideas

In 2014, IGB established its own seed money programme. All scientists working at IGB were eligible to apply for seed money for the development of their project ideas. In October, IGB scientists introduced 15 ideas in the form of short presentations. All IGB employees voted on the merits of the presented ideas. The top five projects in this vote received seed money. Below, we introduce three of them:

**Anthropogenic Influences on Land/Water Coupling:**
The overlooked importance of human-induced feeds on eco-evolutionary processes in aquatic systems

The significance of the natural coupling of land and water for water ecology is well documented through the work of researchers at IGB and other institutes. However, many aquatic ecosystems are also influenced by targeted input of feed stuff caused by humans (bait offered by fishers, feeding with bread and residual feed in aquaculture). Such feed inputs have the potential of influencing entire ecosystems by way of direct and indirect effects on the food web. We presume that in many ecosystems targeted anthropogenic feed may exceed the natural inflow of organic materials from the land. We want to establish this and similar topics of significant interest and high ecological and social impact at IGB and further aim to prove the above introduced hypothesis. To this effect, we plan a lake experiment to quantify for the first time the bait input caused by recreational anglers and its effect on the food web in the lake. Using stable isotopes in a ‘before and after’ design, we want to analyse on which trophic levels we can detect experimental feed inputs and how feeds change the behaviour of the consumers. We will use the 3-D telemetry equipment at Lake Döllnsee for these experiments. In our project, we work closely together with Julien Cucherousset (CNRS, Université Paul Sabatier, Laboratoire Évolution and Diversité Biologique, Toulouse) and with Jari Syväranta (Universität Jyväskylä, Finland).

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**ZPAM:**
The significance of interactions between zooplankton, predation, and associated microbes for lake ecosystems

How is feeding in plankton affected by parasites? Jens Christian Nejstgaard and seven IGB scientists (Maria Belayeva, Stella A. Berger, Hans-Peter Grossart, Peter Kasprzak, Michael Monaghan, Justyna Wolinska, and Sabine Wollrab) want to answer this question together with Maiko Kagami at the Toho University in Japan and Bastiaan Ibelings at the Université de Genève in Switzerland. The team investigates how the nutrition (feeding) is affected in microscopic freshwater organisms when fungi or other parasites infect the predator or the prey. To investigate these complex interactions, the scientists will first develop new molecular methods that allow investigating this directly in natural ecosystems, rather than in laboratory experiments. Countless species of these small (micro- to millimetre-sized) organisms exist in inland waters in huge numbers. To create a comprehensive picture of the entire ecosystem the