



**„Immer so weitermachen ist keine Option“**

**Mark Rounsevell, Professor am KIT, arbeitet im Weltbiodiversitätsrat IPBES**

Pflanzenarten sterben aus, Ackerland wird knapp, die Ozeane sind überfischt. Diese und andere Ergebnisse wurden nun auf einer Konferenz im kolumbianischen Medellin mit Vertretern von 128 Regierungen diskutiert. Weltweit haben mehr als 500 Wissenschaftler drei Jahre lang an vier Regionalberichten und einem Spezialbericht gearbeitet, die den Rückgang der Biodiversität genau dokumentieren. Professor Mark Rounsevell, der am KIT die Forschungsgruppe Landnutzungsänderung und Klima leitet, hat die Bewertung für Europa und Zentralasien mit koordiniert. In dieser Region leben 26 Prozent weniger Meeresfischarten als noch vor zehn Jahren. Auf dem Festland sind im selben Zeitraum die Tier- und Pflanzenarten um 42 Prozent zurückgegangen. Zu den gefährdetsten Tieren zählen Amphibien. In Deutschland ist vor allem das Insektensterben alarmierend.

Die Gründe für den massiven Rückgang der Artenvielfalt sind vielfältig. Die Forscherinnen und Forscher geben unter anderem der intensiven Landwirtschaft mit ihrem immer stärker werdenden Einsatz von Pestiziden die Schuld. Eine große Rolle spielen aber auch der Klimawandel sowie der Abbau natürlicher Ressourcen. Die Wissenschaftler haben Vorschläge für die Politik erarbeitet, die den Rückgang der Artenvielfalt aufhalten könnten. Ökonomisches Wachstum darf demnach nicht auf Kosten der Natur gehen. Zielführend wären auch höhere Steuern, die der Umwelt zugute kommen. Damit könnte die Politik den Bürgern helfen, umweltschädliches Konsumverhalten zu vermeiden.

Eine zentrale Aufgabe sehen die Forscherinnen und Forscher darin, noch besser zu vermitteln, dass eine große Artenvielfalt die Grundlage unseres Lebens bildet: Schwindet die biologische Vielfalt, ist unser Wohlergehen in Gefahr. Die Ergebnisse der IPBES-Konferenz können schon jetzt Einfluss auf die Gesetzgebung der beteiligten Länder nehmen. Sie fließen aber auch direkt in das internationale Umweltabkommen CBD ein, das Ende 2018 weitergehende Empfehlungen erarbeiten soll. ■

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**lookKIT: That certainly sounds sad. But why is that a major issue?**

**Mark Rounsevell:** “People on the street don’t always recognize that the great variety of living species is simply the foundation of our lives. Nature has direct impacts on food, water, air or energy, but also on our culture, spirituality and well-being. So protecting animals and plants is good for them and good for us. An extinct species never comes back again, once it’s gone, it’s gone forever. And right now we are losing a lot of things we strongly depend on.”

**lookKIT: Why is our biodiversity declining?**

**Mark Rounsevell:** “There are a number of reasons, we call them drivers of change. In the agricultural sector the use of chemical fertilizers and other chemical inputs is severely increasing. In Germany, for example, we have studies that demonstrate massive declines in the populations of flying insects – for which, the use of pesticides is largely responsible. Then there is climate change. We can clearly see its impacts on biodiversity right now, and in the future, it will be even more important. Other drivers are the extraction of na-



**KIT PROFESSOR MARK ROUNSEVELL IS MEMBER OF THE INTERGOVERNMENTAL SCIENCE-POLICY PLATFORM ON BIODIVERSITY AND ECOSYSTEM SERVICES (IPBES)**

*Professor Mark Rounsevell leitet am KIT die Forschungsgruppe Landnutzungsänderung und Klima*

*Professor Mark Rounsevell heads the Land Use Change and Climate Research Group of KIT*

**„Business as Usual Is not an Option“**

*Im März kamen internationale Wissenschaftlerinnen und Wissenschaftler sowie Politikerinnen und Politiker in Kolumbien zusammen, um den Rückgang der Artenvielfalt zu diskutieren*

*In March, scientists and politicians from around the world gathered in Columbia to discuss the state of the world’s biodiversity*

**In what condition are the ecosystems of the Earth and how can we protect them? In March, scientists and politicians from around the world gathered in Columbia to discuss the state of the world’s biodiversity. Mark Rounsevell, Professor of Land Use Change at KIT Institute of Meteorology and Climate Research – Atmospheric Environmental Research, co-chaired the regional assessment for Europe and Central Asia. A conversation about serious threats for all of us – and available solutions.**

**lookKIT: Mr. Rounsevell, in what condition is our biodiversity?**  
**Professor Mark Rounsevell:** “It’s declining almost everywhere in the world. In Europe and in Central Asia there are 26 Prozent fewer known marine fish species in the last 10 years. And, in terrestrial areas we found that 42 % of the known species of animals and plants have been in decline, that’s almost a half! Even more threatened are fresh water animals, but it’s difficult to find data to quantify this declines exactly. Amphibians are among the most endangered species.”





*Bebauung, Landwirtschaft und der Abbau natürlicher Ressourcen werden für den Rückgang der Artenvielfalt verantwortlich gemacht*

*Building activities, agriculture, and extraction of natural resources are deemed to be responsible for the decline of biodiversity*

tural resources such as mining, the removal of wood or fishing, and the impact of alien invasive species, that are not originally present within a region, upon indigenous species. Most of these species have migrated because of climate change and because of other human activities such as trade or shipping.”

**lookKIT: You and your colleagues presented these and other specifications at the 6th Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in Medellin in Columbia. Where did the data come from?**

**Mark Rounsevell:** “The IPBES is basically a science policy process, where governments of the world request evidence from the science community to support policy in the field of nature and biodiversity. In the last three years, different regional assessments have been undertaken, one for Europe and Central Asia, one for Africa, one for the Americas and one for Asia and the Pacific. Together with my colleague Markus Fischer from the University of Bern, I co-chaired the whole of the regional assessment for Europe and Central Asia. We had over 130 authors, people from various scientific institutions across this region. Their task was to look at the individual evidence within the scientific literature and to synthesize it.”

**lookKIT: You had a lot of papers to read.**

**Mark Rounsevell:** “We cited more than 4000 publications. Of course I couldn’t read all of those myself, that’s why so many authors were involved. But you’re right, it still was an enormous challenge. Our full technical report is several hundreds of pages long. From that we created a much shorter synthesis document that summarizes the evidence for policy makers. The Summary

for Policy Makers was designed to translate the technical science language into language that governments can understand.”

**lookKIT: Did the report also work out recommendations for the politicians?**

**Mark Rounsevell:** “Not so much policy recommendations, but certainly alternative policy options. One possible solution would be to decouple economic growth from the degradation of nature. At the moment, we don’t pay the true costs of our actions. Food production for example has direct impacts on environmental pollution and on biodiversity, but the price we pay in the shops for food does not account for that. Our food is simply too cheap. We suggest more environmentally related taxes in order to embed the true costs of environmental damage within these goods. At present we’re not going in the right direction, in fact in the last decade environmental taxes in Europe have declined. We have agricultural, fishery, forestry, water, transport, energy and many other policies, but they are not joined up in terms of their impacts on nature. This is a major problem. Equally important is that governments should help people to change their consumption patterns. We do not all have to become vegetarians, but if everyone just eats a little bit less meat, that would greatly reduce the pressures on nature. Everyone has to know: Business-as-usual could well be catastrophic with mass extinctions and degradation of the natural resources we rely on as humanity.”

**lookKIT: At the IPBES you had to defend your conclusions in front of the governments. How did the politicians react?**

**Mark Rounsevell:** “We had to go through the document line by line in order for the govern-

ments to approve what was written in the report. In some cases, they disagreed with what we had written or questioned whether there was sufficient evidence. Sometimes they wanted to have the wording changed, especially when something sounded too policy prescriptive, such as „Policy makers should...“ rather than „it would be beneficial, if ...“. Getting the assessment approved by governments took three days of working from morning until at least midnight every day. Quite hard work.”

**lookKIT: What happens now with these results?**

**Mark Rounsevell:** “About 130 governments were involved in that process. In principal at least each of these governments should take account of the findings of that work and hopefully embed them within nature conservation policy. But, the further process is also strongly associated with the Convention on Biological Diversity (CBD), the multilateral environmental agreement between governments that supports nature conservation of the world ecosystems. The next meeting will be at the end of the year, and I expect there to be policy recommendations, which are more prescriptive, arising from our assessment. Furthermore, we hope to meet with various members of the European Union to explore ways in which some of the findings can find their ways into reforming, revising and enhancing biodiversity policy. That would be an excellent outcome for a science-based assessment.” ■

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