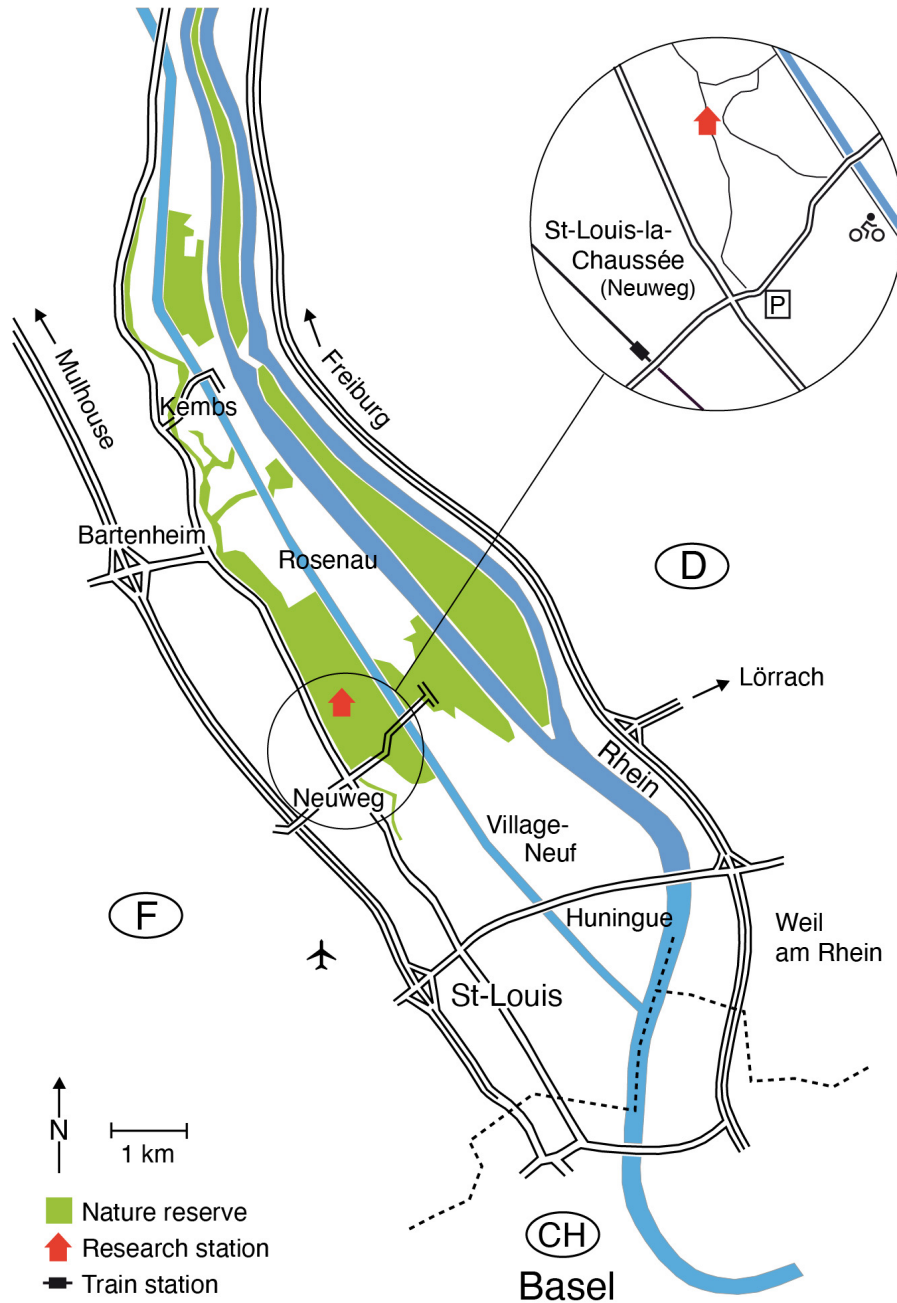




Wilde Weiden in der
Petite Camargue
Alsacienne

Valentin Amrhein



1982: 120 ha, erstes nationales Naturschutzgebiet im Elsass

2006: 904 ha

Association Petite Camargue Alsacienne:
1000 Mitglieder, 15 Angestellte

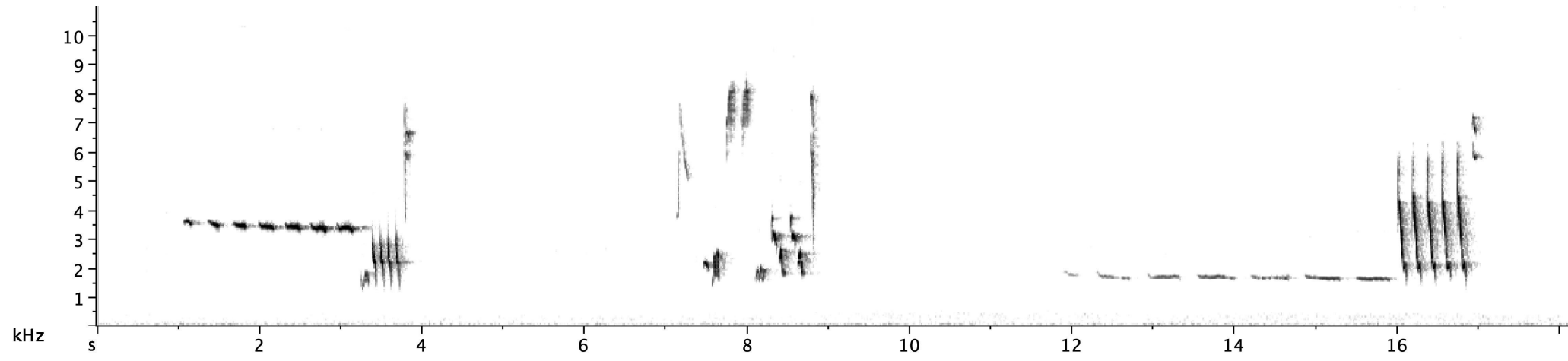


1989 Gründung der Forschungsstation

Hauptsponsoren:

MAVA Foundation

Swiss Association Pro Petite Camargue Alsacienne



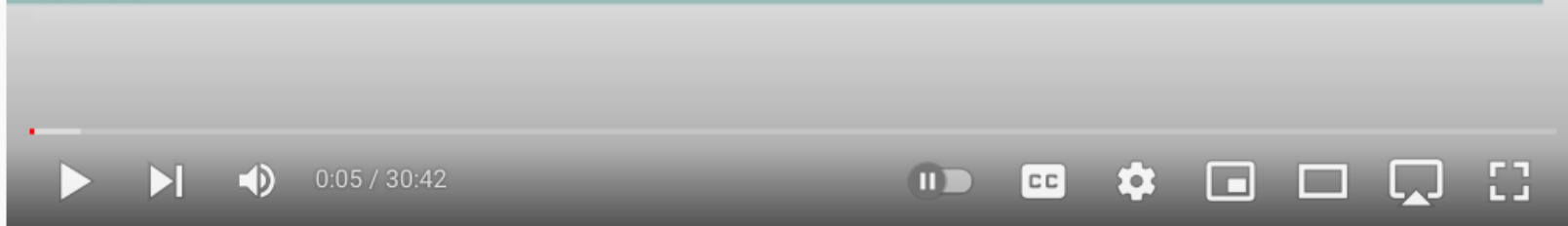
Nachtigall



Universität
Basel

Wieso singen Vögel?

Prof. Dr. Valentin Amrhein
Biologe



«Wieso singen Vögel?» – Kinder-Uni Basel 2020: Prof. Dr. Valentin Amrhein

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COMMENT

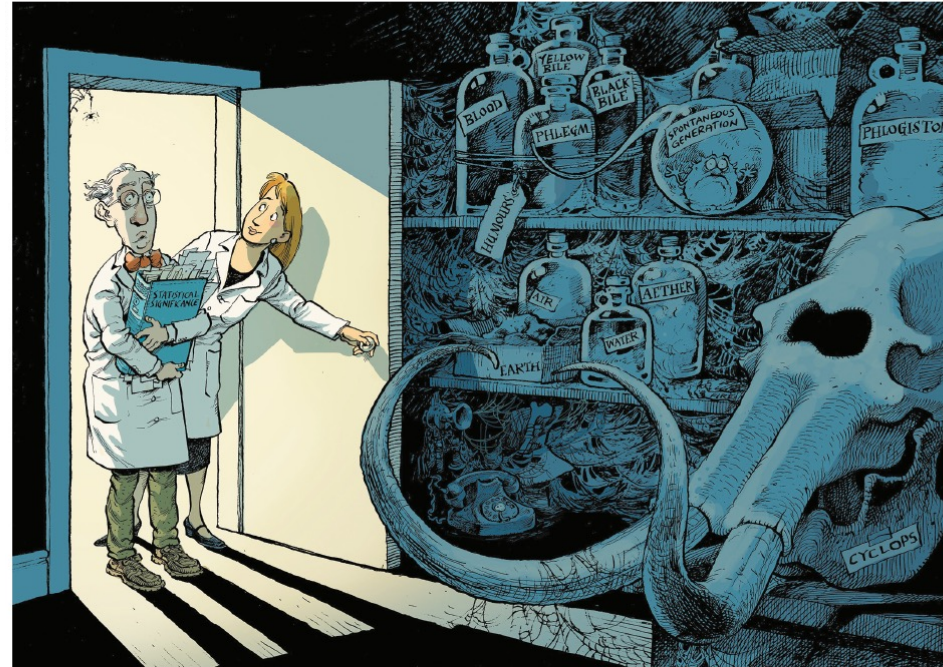
EVOLUTION Cooperation and conflict from ants and chimps to us **p.308**



HISTORY To fight denial, study Galileo and Arendt **p.309**

CHEMISTRY Three more unsung women — of astatine discovery **p.311**

PUBLISHING As well as ORCID ID and English, list authors in their own script **p.311**



Retire statistical significance

Valentin Amrhein, Sander Greenland, Blake McShane and more than 800 signatories call for an end to hyped claims and the dismissal of possibly crucial effects.

When was the last time you heard a seminar speaker claim there was 'no difference' between two groups because the difference was 'statistically non-significant'?

If your experience matches ours, there's a good chance that this happened at the last talk you attended. We hope that at least someone in the audience was perplexed if, as frequently happens, a plot or table showed that there actually was a difference.

How do statistics so often lead scientists to deny differences that those not educated in statistics can plainly see? For several generations, researchers have been warned that a statistically non-significant result does not 'prove' the null hypothesis (the hypothesis that there is no difference between groups or no effect of a treatment on some measured outcome). Nor do statistically significant results 'prove' some other hypothesis. Such misconceptions have famously warped the

literature with overstated claims and, less famously, led to claims of conflicts between studies where none exists.

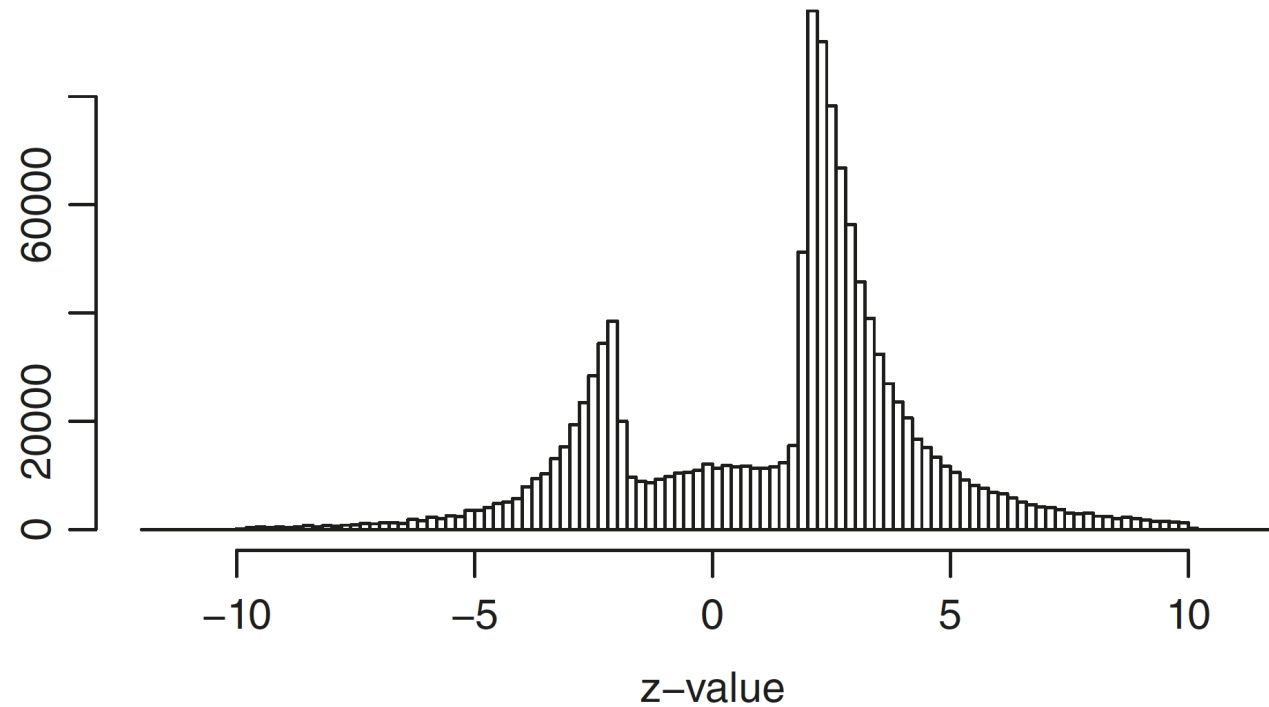
We have some proposals to keep scientists from falling prey to these misconceptions.

PERVASIVE PROBLEM

Let's be clear about what must stop: we should never conclude there is 'no difference' or 'no association' just because a *P* value is larger than a threshold such as 0.05 ▶

Der Signifikanz-Filter

'Nicht-signifikante' Ergebnisse werden nicht veröffentlicht



Verteilung von 1.3 Millionen z-Werten aus Medline (1976–2019)
van Zwet & Cator 2021, Statistica Neerlandica







Image © 2008 DigitalGlobe

Image © 2008 GeoContent

Google

1000 m
47°37'30.43" N 7°32'58.11" E

2000

Sichthöhe 3.62 km



2015

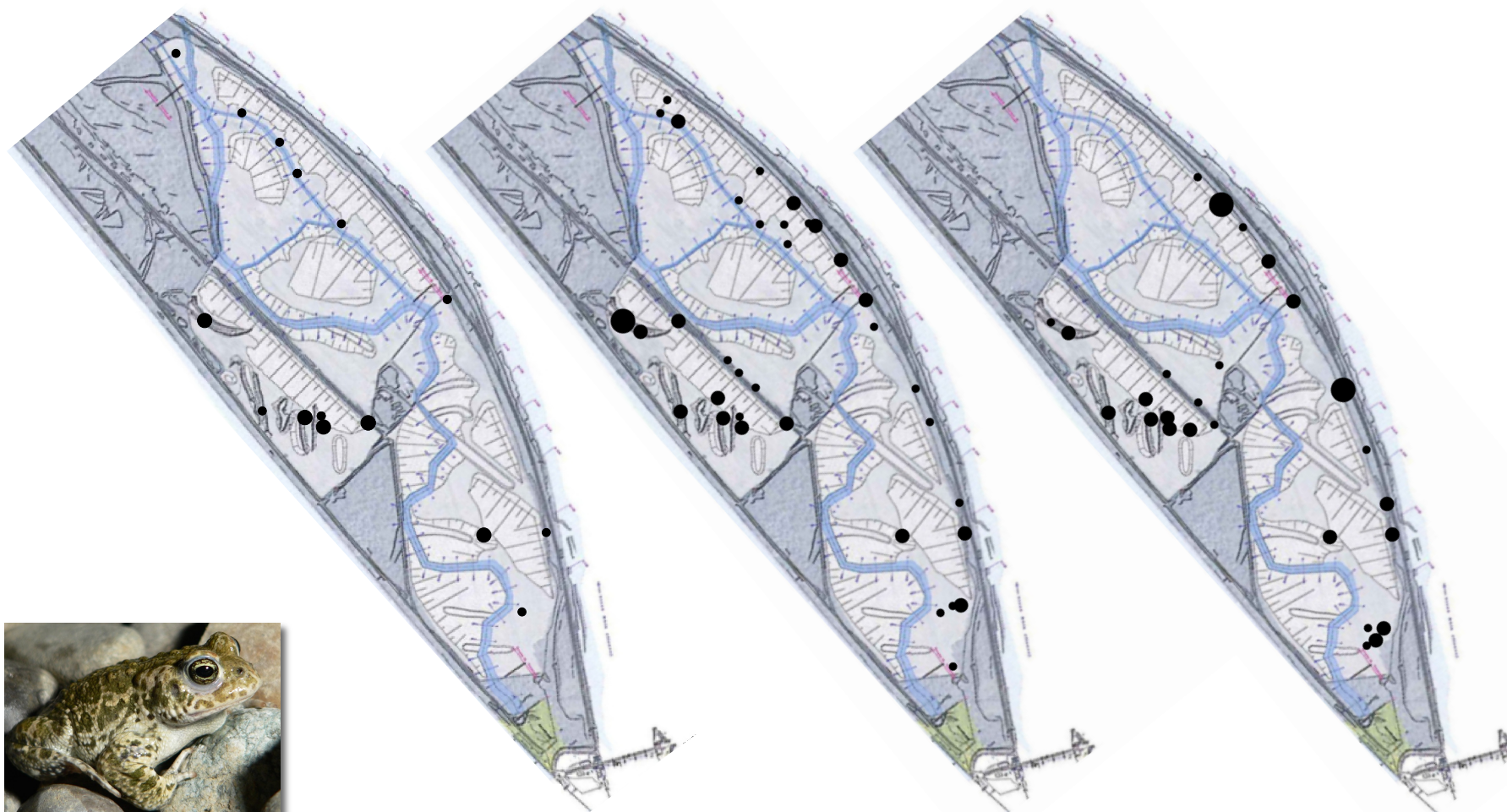


2014

2015

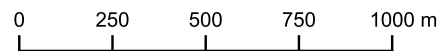
2016

2017



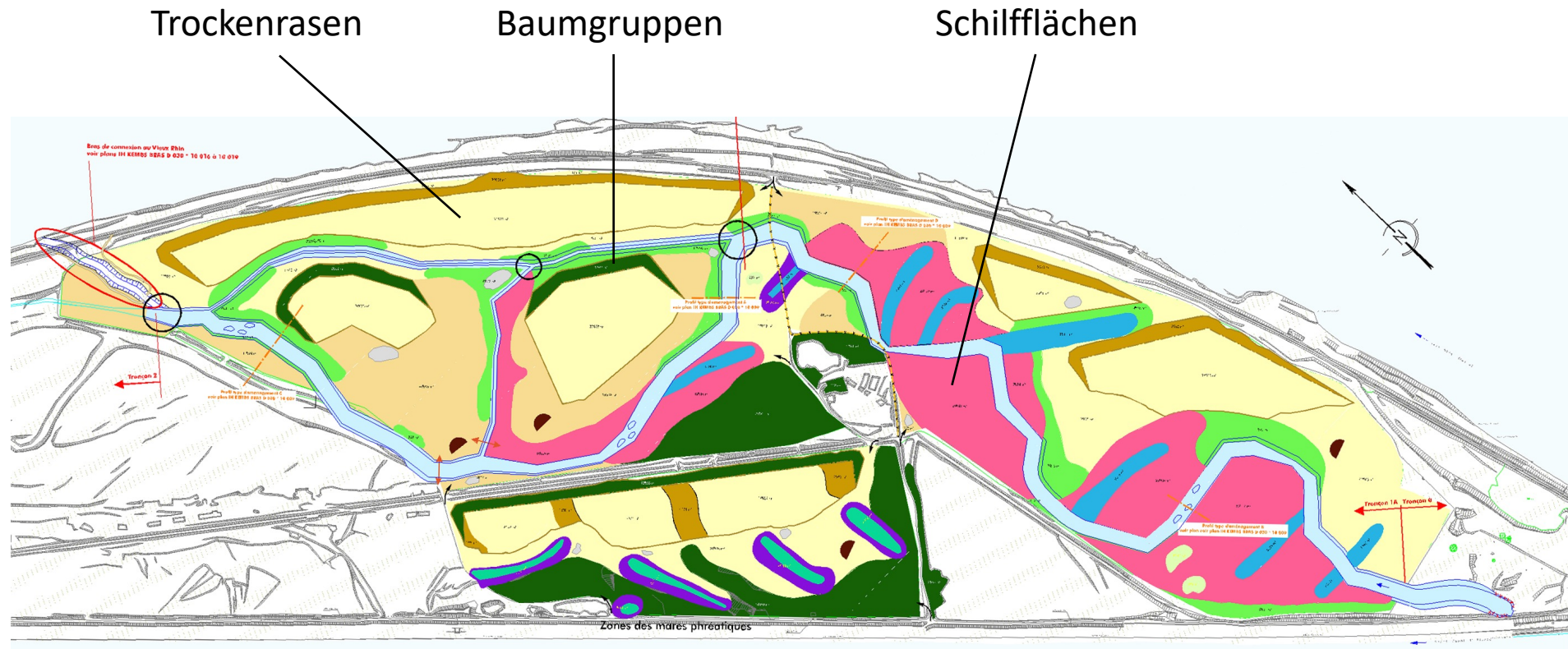
Kreuzkröte (*Epidalea calamita*)

- 1 bis 5 Ind.
- 6 bis 30 Ind.
- 31 bis 100 Ind.



Christoph Bühler

Plan de renaturation



2014



2016



2017



2021



Wisent



Highland



Przewalski



Konik



Where I work Lilla Lovász

Just inside France's border with Germany, enclosed between the Rhine River and the Grand Canal of Alsace, lies an island that is becoming a haven for biodiversity. The site, to the north of Basel, Switzerland, is being made into a conservation area in a joint project between the National Nature Reserve of the Petite Camargue and the French energy company EDF. The aim is to create a self-sustaining mosaic of forest and meadows that can host many species of flora and fauna.

As part of my PhD programme in zoology, I study how the landscape of a 32-hectare test area of the island changes over time. I and my colleagues are documenting the diversity of birds, amphibians, butterflies and plants.

Meadows are a rare and precious habitat in central Europe. Without floods, fires or large grazing animals, meadows typically have to be maintained through mowing or grazing. The reserve's managers use cows and horses as grazers to prevent forests from taking over the island.

In 2018, we introduced Konik horses, which might be direct descendants of

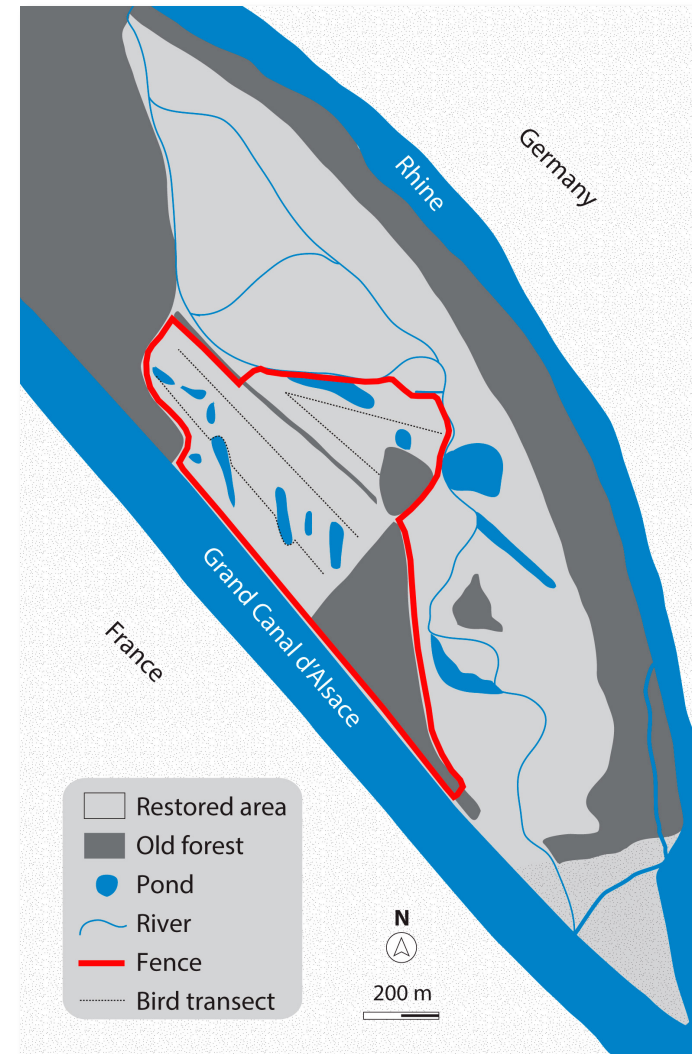
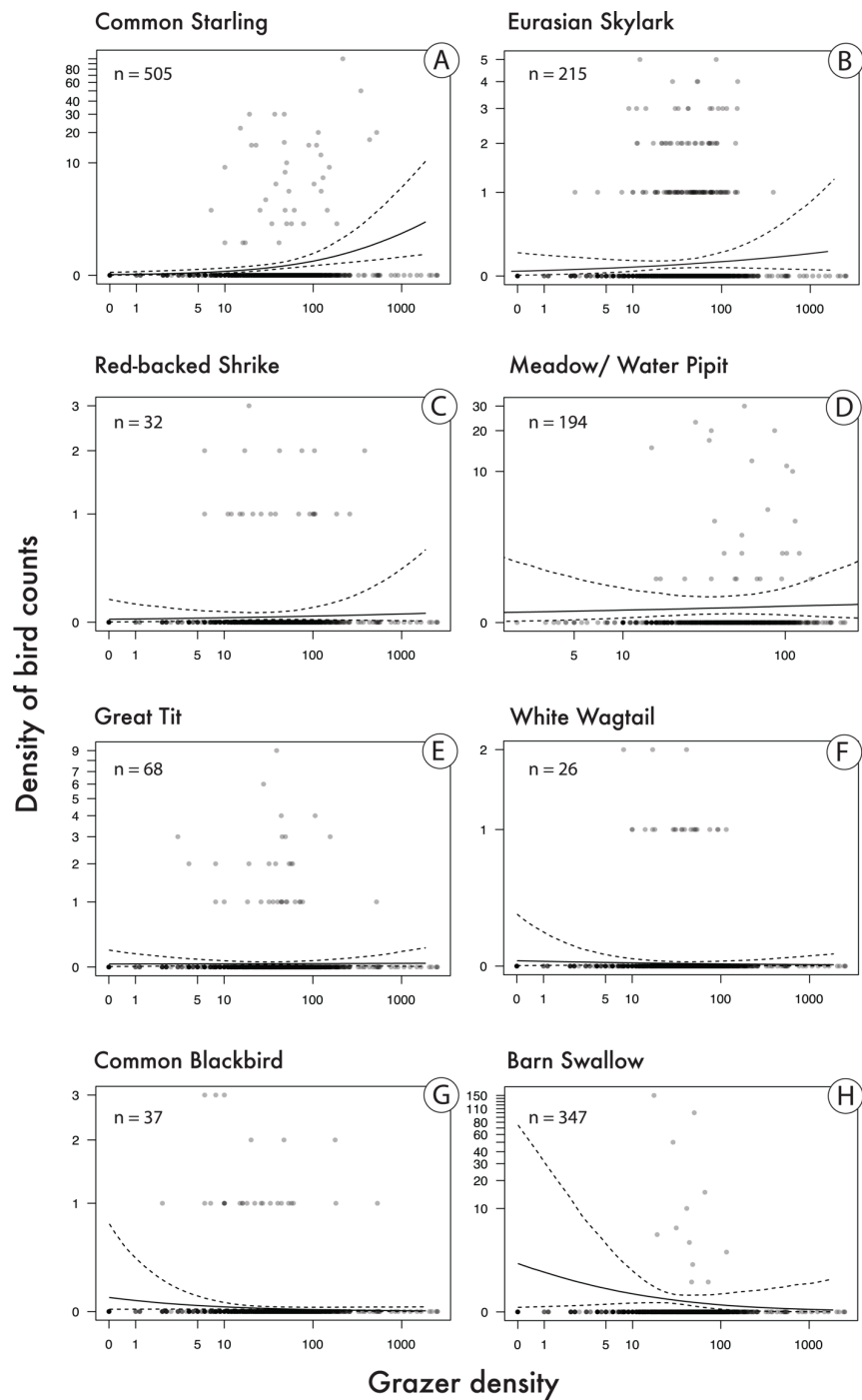
wild horses, followed by Highland cows. Currently, we have seven of each.

I conduct vegetation surveys between June and September and do bird surveys year round. In this picture, I'm carrying on with one of my responsibilities – attending to the horses' GPS collars and replacing batteries. I have to be in a calm state to take a horse's collar off and put it back on, because they are so sensitive to human moods. They have to be in the right mood, too, or I'll get a warning kick.

It's been fascinating to watch the changes here over the past three years. Nature is returning, and more species are coming back. In particular, the common starling (*Sturnus vulgaris*) and Eurasian skylarks (*Alauda arvensis*), whose populations are declining in Europe, are benefiting here from the horses and cows. We think that the grazers help starlings – for example, by flushing out the insects that they feed on.

Lilla Lovász is a PhD student in zoology at the University of Basel, Switzerland. **Interview by Virginia Gewin.**

Photographed for *Nature*
by Clara Tuma.



"Grazer density and songbird counts in a restored conservation area"
 Lovász, Korner-Nievergelt, Amrhein 2021, PeerJ



Découverte du Tarpan Konik ou Tarpan Article de référence Où sont les Tarpans ?

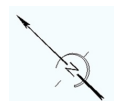
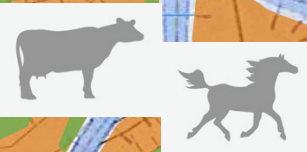
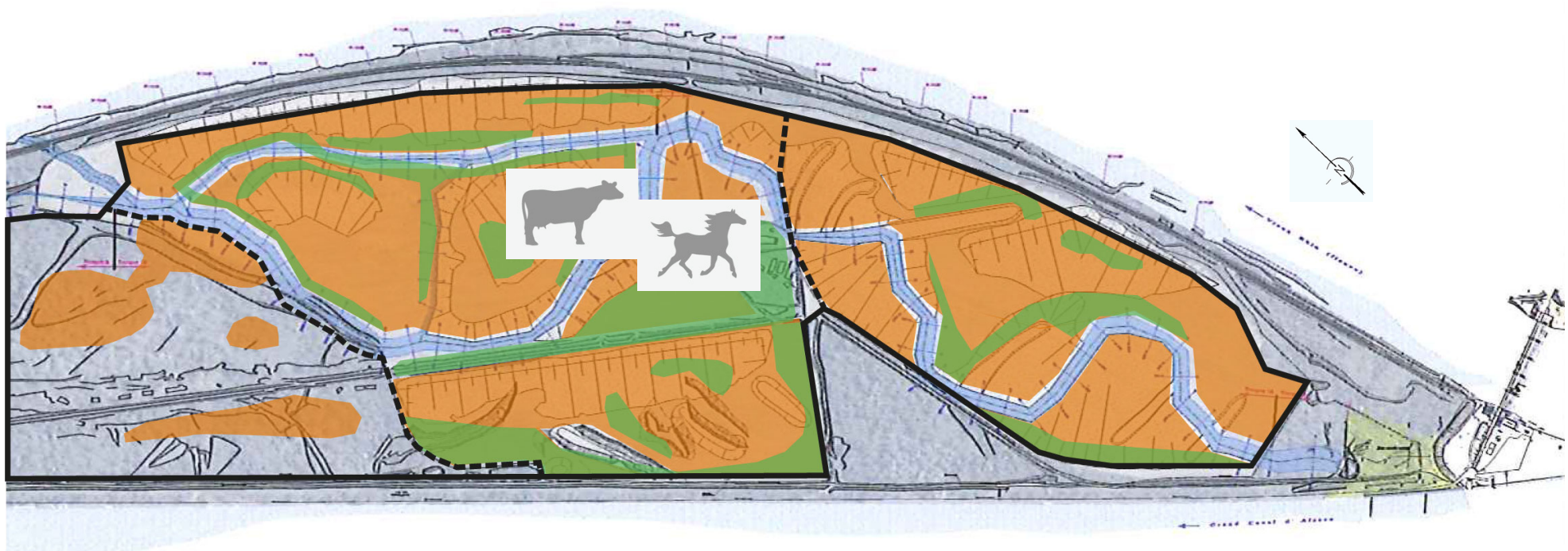


Le Projet Tarpan



Wikipedia: "Der Cherson-Tarpan, das einzige fotografisch festgehaltene Individuum des Tarpans", 1884

"Konik, Tarpan, European wild horse: An origin story with conservation implications"
Lovász, Fages, Amrhein 2021, Global Ecology and Conservation



WINDY HILL DRIVE

GRAND ROAD & ALLEY

Merci!



www.camargue.unibas.ch