

# Amateur experts in zoology

## **Biodiversity research, taxonomy (especially in tropical countries)**

Many private collectors invest a considerable amount of time and money in their research, especially for collection building as well as for literature studies, museum visits, exhibitions, lectures and publication of research results.

Between 80-100 volunteer entomologists (the majority of which are butterfly and beetle specialists), and about 10 mollusk collectors are involved in this field of activity, with individual cases in the other groups.

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## **DNA Barcoding (ZSM-Projekte)**

The leading European position of the Bavarian State Collection for Zoology (ZSM) in DNA barcoding would not have been possible without the contribution of the many private collectors and amateur experts. They helped and still help the ZSM in research projects such as Barcoding Fauna Bavarica (BFB), German Barcode of Life (GBOL), and Intensive versus Organic Production (HIPP) by collecting and providing suitable sample material. For this reason, more than 50% of the native fauna is already represented in the genetic reference library.

At present, a total of almost 100 volunteers, mainly entomologists, work in this field of activity.

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## **Monitoring of the Bavarian fauna**

Many private collectors are active in monitoring the Bavarian butterfly and beetle fauna and meet in various forums and working groups (e.g. determination evenings at the ZSM; Munich Entomological Society; Working Group of Southeast Bavarian Lepidopterists). The data obtained in this way are continuously published in specialist journals such as the "Nachrichtenblatt der bayerischen Entomologen" and are also included in the recently published and continuously updated checklist of the butterflies of Bavaria: [www.barcoding-zsm.de/bayernfauna/lepidoptera](http://www.barcoding-zsm.de/bayernfauna/lepidoptera)

About 80 volunteer entomologists (mainly butterflies) are engaged in this field of activity.

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## **Active nature conservation**

Many private collectors – supported by the SNSB/ZSM – their expertise on the ecological requirements and needs of native vertebrates (especially birds) and insects. For insects, care advice is provided, especially for butterflies, beetles, grasshoppers, and dragonflies, for official, regional, and municipal conservation, as well as specific suggestions for improving or restoring the structural and chemical integrity of habitats. In addition, recording data is supplied to the Bavarian State Office for Environmental Protection in Augsburg, among other things for the development of species and biotope protection plans. General environmental awareness is also raised through lectures, excursions and other activities at schools and adult education centers.

The [Ornithological Society of Bavaria](#), the [Munich Entomological Society](#), the [Friedrich-Held Society for Molluscology](#) work closely together with the Munich State Zoological Collection.

A total of almost 50 volunteers are enthusiastically working in this field of activity.