

An underwater photograph of a coral reef. The water is a deep blue, and the coral is a mix of brown and grey. Numerous small, bright orange fish are swimming throughout the scene, some near the coral and others in the open water. The lighting is bright, suggesting a shallow depth.

Species360
Conservation Science Alliance

SHARING DATA

Transforming

45 years of data

to save species



Over more than 45 years, the contributions of Species360 members have created the world's largest database on animals under human care. We strive to make these data available to support all those who want to conserve species, improve animal care, and advance science. We also work to process and analyze these data to provide critical information to our members and the conservation community. If you would like to know more about our Species Knowledge Index, please visit this [webpage](#).

As part of this vision, we support researchers and members around the globe by:

- Providing open-source data and supplying select data on request.
- Helping members use data in the Zoological Information Management System (ZIMS) to advance wildlife conservation.
- Expecting Species360 and our members to be acknowledged for the amazing data they collect and share in ZIMS.

Research Partner Program

Species360 hosts a Research Partner program so your institution can access a variety of data in ZIMS without submitting a Research Request. For more information, please see our [Research Partners webpage](#).

Species Holdings Data

Species holdings data include the number of living individuals and their location at our member institutions. You do not need a formal Research Request to access these data. For enquiries, please contact support@species360.org.

Dr. Cheng Wen-Haur

Chairman of the Species360 Board of Trustees

Deputy CEO and Chief Life Sciences Officer, Wildlife Reserves Singapore



We strive to advance animal care and conservation through robust data analytics. We believe our members' data can make a huge difference to advancing science and saving species from extinction.

To achieve these goals, we are working towards sharing data at different levels of accessibility.





Research Request Process

Husbandry Data

In collaboration with the Interdisciplinary Center on Population Dynamics (CPop) at the University of Southern Denmark, we are developing tools to extract and curate data in ZIMS for Husbandry. This allows us to provide data in an accessible format while maintaining the anonymity of our members.

To obtain data access

Complete a Research Request through this [link](#). Any email communications should be directed to support@species360.org.

The review process is outlined in detail in the following pages.



ZIMS FOR
HUSBANDRY

Our members record husbandry data for 21,000 species, with more than 10 million records available for historical and live individuals.



Includes data on births and deaths (including dates), paternity, maternity, litter/clutch size, and weight.

Review Process

Initial Review

Your Research Request will first be reviewed by our Product Development and Science Departments to estimate the effort required to extract the data. Following this first review, your Research Request will be sent to the Species360 Research Committee for evaluation or returned to you for revision or clarification, if needed.

In the review process, we evaluate:

- The data requested are hosted in ZIMS.
- The data can be queried and formatted by our Product Development and Science Departments. This will also determine required funding and timeframes to deliver the data.
- The data requested are directly related to answering the specific research question(s) stated in your proposal.
- The scope is limited and clear (i.e., requests for all species of birds, mammals, or all species in ZIMS will not be approved).
- The data can be supplied while ensuring the anonymity of our members.
- The proposal demonstrates scientific merit and is feasible.
- The research can be of value to our members (note, this is not a compulsory requirement).



Final Evaluation by Our Board of Trustees

The Research Committee will provide a recommendation to our Board of Trustees, who make the final decision on the use of the data on behalf of our members. Once the Request is approved, you will receive a Data Use Agreement and a Data Accession Number.

Data Sharing in the Future

At the member institution level, ZIMS for Medical assists members with capturing standardized medical information and provides tools for data analysis and retrieval. Standardized medical records include diagnoses, prescriptions, health status, samples, testing and results, anesthesia, and physiological measurements.

Species360 aggregates member data to extract knowledge at the regional and global population levels and summarizes this information in resources available in ZIMS.



ZIMS FOR
MEDICAL

Current Medical Resources

- **Expected test results**, which assist with the interpretation of test results by providing reference intervals for more than 1,000 species.
- **Anesthesia summaries**, which provide species-level information about commonly used anesthesia protocols and risks.
- **Drug usage extracts**, which summarize drugs, dosages, routes, and treatment frequencies from prescription records.



We cannot yet support Research Requests for ZIMS for Medical, with the exception of physiological norms. Institutions can become Research Partners; please see this [link](#) for information on how to become a Research Partner and which types of data you can access.

We are currently developing tools to extract additional medical information to advance species research and conservation.

Frequently Asked Questions

Making a Research Request

What types of data are available from Species360?

We can only process Research Requests for husbandry information. Husbandry information comprises: births, deaths (including dates), paternity, maternity, and litter/clutch size. Soon, we will be able to provide weight data for all mammals and bird species. Data from our ZIMS for Medical module are not currently available for Research Requests with the exception of information on physiological norms.

Species360 is developing an Open Data Portal as part of the Conservation Science Alliance initiative: Where can I find it?

Species-level aggregated data are provided for select species in the [Open Data Portal](#). Currently, data are available on turtles and tortoises, the value of aquariums for species in conservation prioritization schemes, and demographic information standardized across 22 data repositories for all tetrapods.

I want to know the name, number, and location of species in ZIMS: Do I need a Research Request?

No, as these are classified as Species Holdings data. For data on species held at our member institutions, you do not need a formal Research Request. To inquire about the data, please contact support@species360.org.

I want to access Studbook data: Should I submit a Research Request to Species360?

No, if you want to access Studbook data, you need to contact the Studbook owners or the Regional Zoo Association that sponsors the Studbook.

Why can't I submit a Research Request asking for data on all species in ZIMS?

Currently, we do not have the capacity or the financial means to provide data to external researchers for all species in ZIMS or for broad taxonomic scopes (e.g., all mammals or birds). We are striving to make as much of our data analytics open-source once our projects are concluded. In the future, our [Open Data Portal](#) will contain data on life expectancy for all species with sufficient sample sizes in ZIMS.

Why do I need to complete a Research Request for every project?

Species360 is the custodian (not the owner) of our members' data and every Research Request application is reviewed by our Research Committee. Our Board of Trustees makes the final decision based on recommendations by the Research Committee.

Who makes the final decision for approving Research Requests?

The Research Committee makes a recommendation to the Board of Trustees, who holds the ultimate decision power to approve or decline the request. The Board of Trustees must balance data-privacy obligations towards our members with our mission to support global animal care and species conservation.

Who are the members of the Species360 Board of Trustees?

The [Species360 Board of Trustees](#) comprises leaders committed to species conservation, animal welfare, conservation education, and other wildlife-focused efforts.

Species360 Members FAQs

How long does it take for my Research Request to be approved?

All Research Requests are reviewed by both our Research Committee and our Board of Trustees every four months.

If my Research Request is approved, when can I expect to receive the data?

Following approval, you can expect to receive the data within two to six months (or more), depending on the complexity of data extraction and the number of requests being processed.

Is funding required to support my Research Request?

In most cases, we will ask for funding to support data extraction. However, if the data have already been processed by the Product Development and Science Departments, we may be able to provide them at no cost.

My Research Request was approved: What if there is no funding or developer time to extract it?

If funds or/and developer time are not available, we will let you know. We are working towards securing funding to develop data-extraction tools for our members, the Species360 Science team, and for external requests.

I do not have funding to extract the data, but I or someone on my team has programming experience: Can we develop the queries we need?

No, Species360 is the steward of sensitive data on behalf of our members. Therefore, only our internal team can develop queries in ZIMS.

I am a Species360 member: Does “open” data mean my records will be visible to the public?

No. We do not disclose your institution’s records to external users. Data shared openly are highly aggregated and only presented at the species level.

I am the only Species360 member holding a species: Will I have control on the use of these aggregated data?

Yes. If a species is only held at your institution, we will ask for your permission to make any data available to the public.

If I have access to data, can I share it with a third party (i.e., another person or institution)?

No, members cannot share Species360 data with third parties. All those who will handle the data as part of a research project must be identified in the Research Request. For further information, please see the section on the Scope of Use of our data in our [Terms and Conditions](#).

Can I share data with external researchers if I am a Species360 member institution?

No, you can only share data from your own institution. If you want to use or share data from other member institutions, you have to submit a Research Request. For further information, please see the section on the Scope of Use of our data in our [Terms and Conditions](#).

Data Usage & Publications

Are these data appropriate for a Masters' project or PhD thesis?

We do not recommend designing a research project for any degree (e.g., Bachelor, Masters, or PhD) prior to the Research Request being approved since we cannot guarantee approval or provision under any timelines. It is the obligation of the student's supervisor to ensure data access has been provided by Species360 before assigning a project to a student. If you are a student supervisor wishing to access data for a student project, please consider timelines for Research Request approval and data extraction.

If I get access to Species360 data, can I use it in multiple projects and/or publications?

No. If Species360 grants access to data, it is only intended for and restricted to use in the project it was approved for and for one publication. The researcher cannot use it for other projects, publications, and/or purposes.

Do I need a Research Request for every publication?

Yes. You need to submit one Research Request per publication. Since July 2019, Species360 provides an accession number that only grants data for use in the publication specified in the Research Request.

Why do I get one Accession Number per publication and why do I need to provide it in my publication, presentation, or report?

You need to show that you have rightfully obtained access to data for that particular publication. Authors will typically cite their Data Accession Number in the methods or data accessibility section of their paper.

How do I cite Species360 data in my publication, presentation, or report?

Members and researchers must cite the relevant Species360 database in their publications (see our [citation guide](#)) and specify their Data Accession Number.

Do I send Species360 a copy of my publication?

Yes, please. Your publications may be used to inform our members about the research outcomes of their data, which could help promote your paper.

