



Global information
serving conservation.

ZooMu Cyber Infrastructure workshop

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www.species360.org

**As a non-profit organization,
Species360's Mission is to:**

"Foster international collaboration in the collection and sharing of data to serve global plant and animal management and conservation goals."

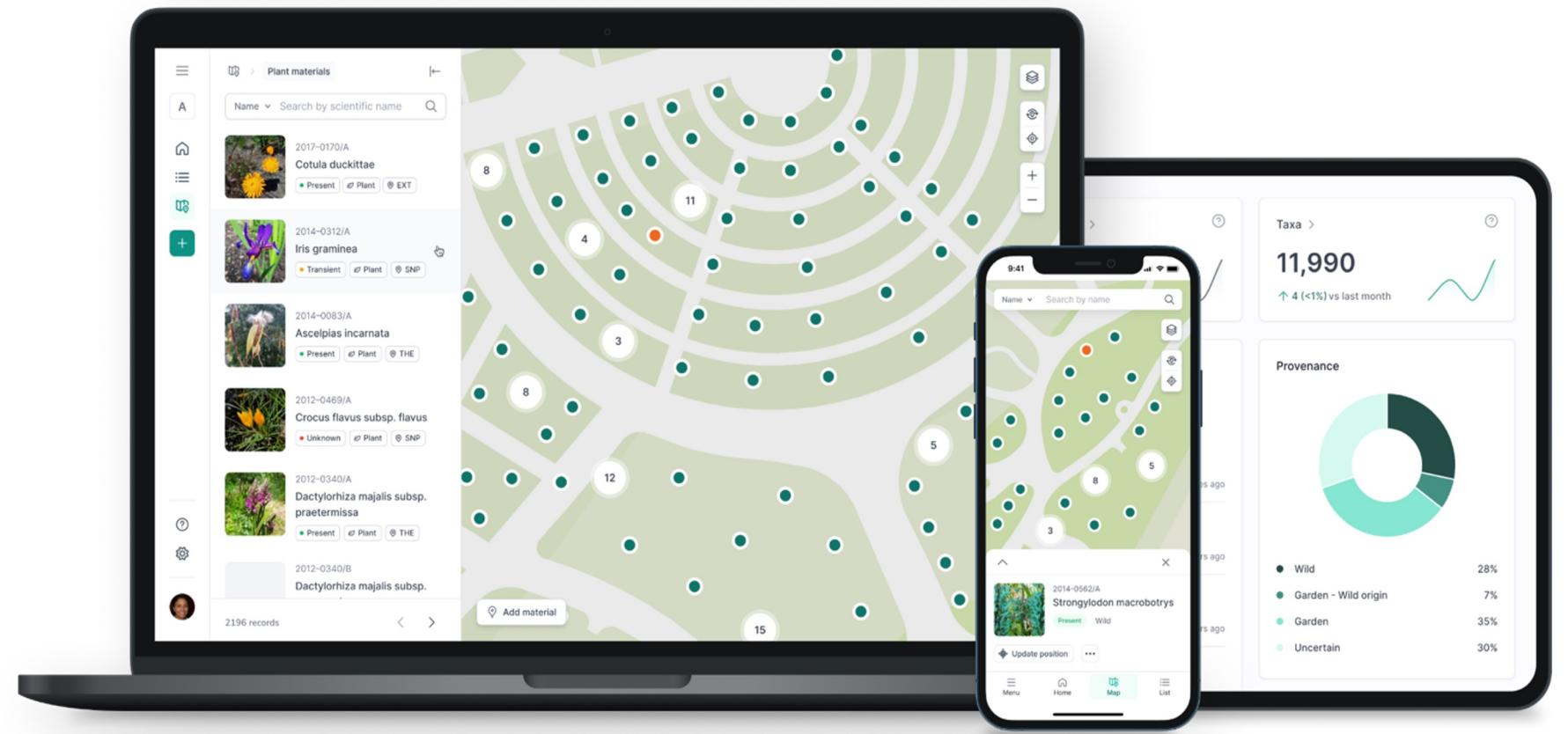




Hortis

by Species360

- Plant conservation via data sharing **for plants**
- Protect critical institutional knowledge
- Mapping plants made easy
- Shared Taxonomy





ZIMS

HUSBANDRY & AQUATICS

- Accessions
- Permits
- Enclosures
- Feed logs
- Enrichment
- Inventory
- Reports
- Water quality
- Collection management
- Enclosure management

MEDICAL

- Global Medical Resources
- Test Results
- Sample Storage
- Anesthesia
- Necropsy/biopsy
- Clinical diagnosis

STUDBOOKS

- Collaborative population management



ZIMS

(Zoological Information Management Systems)

+25,000 Species
+13 Million Individual animals
220 Million Husbandry Records
82 Million Medical Records

1300+ institutions
Actively use ZIMS.

**100+ countries,
6 continents**
Our members span the globe.

**Non-Profit NGO
Global Board of Trustees**
From 6 continents.

16,500+ users
Generate streams of data
into ZIMS every day.

100+ scientific studies
Have leveraged/featured
ZIMS data in their research.

40+ associations
Global, regional and
professional partner with us.

50+ conservation organizations
Use ZIMS in their work.

20+ universities
Use ZIMS for Education.



How does *ex situ* data contribute to the preservation of biodiversity?

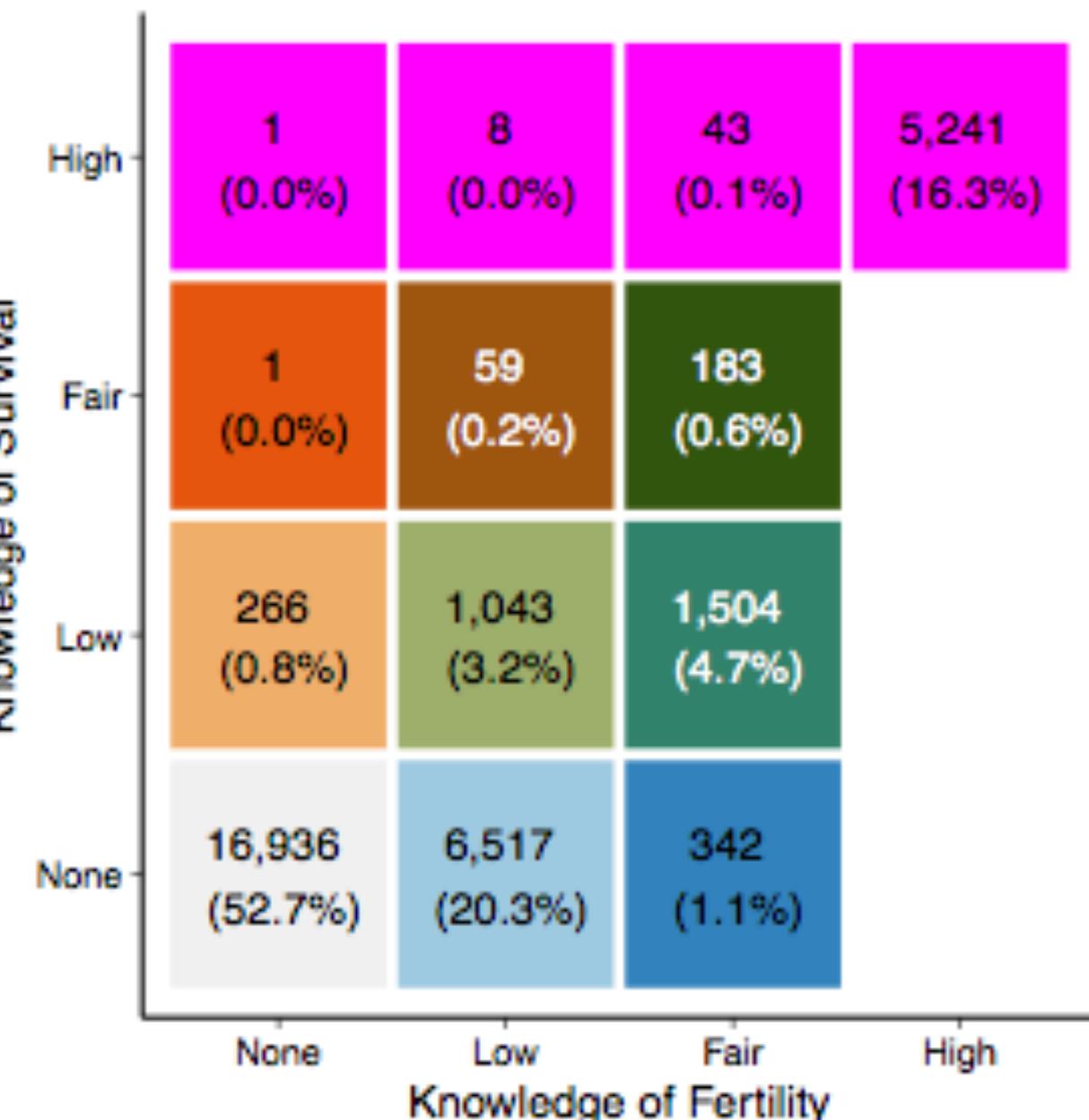


- Fills species demographic knowledge gaps
- Monitor and treat diseases to conserve species *in situ*
- Expand knowledge of zoonotic diseases
- Conservation translocations
- Research publications



High-quality demographic data

1.3%



Conde *et al.* (2019) PNAS

S2S

Gekkonidae

Lacertidae

Liolaemidae

Elapidae

Viperidae

Squamata

Dactyloidae

Lamprophiidae

Scincidae

Colubridae

Dipsadidae

Agamidae



Alaudidae

Motacillidae

Pipidae

Cettidae

Vangidae

Prunellidae

Bucconidae

Bernieridae

Leiothrichidae

Oriolidae

Dicruridae

Paridae

Sittidae

Pachycephalidae

Crassirostridae

Monarchidae

Acanthizidae

Cotingidae

Petroicidae

Cisticolidae

Timaliidae

Ploceidae

Malaconotidae

Sylviidae

Vireonidae

Meliphagidae

Acrocephalidae

Passeriformes

Locustellidae

Turdidae

Estrildidae

Furnariidae

Thamnophilidae

Tyrannidae

Fringillidae

Thraupidae

Emberizidae

Muscicapidae

Rhipiduridae

Apodiformes

Cypselidae

Piciformes

Ramphastidae

Laridae

Charadriidae

Charadriformes

Scolopacidae

Psittaciformes

Phasianidae

Columbiformes

Galliformes

Accipitriformes

Phasianidae

Phoenicopteriformes

Pelecaniformes

Anseriformes

Tinamiformes

Gruiformes

Caprimulgiformes

Strigiformes

Tytonidae

Cuculiformes

Coccyzidae

Alcedinidae

Halcyonidae

Coraciiformes

Coraciidae

Accipitridae

Accipitridae

Phalaenoptilidae

Phalaenoptilidae

Indicatoridae

Indicatoridae

Bucerotidae

Bucerotidae

Phoeniculidae

Phoeniculidae

Phoenophaeidae

Phoenophaeidae

Megapodiidae

Megapodiidae

Cuculidae

Cuculidae

Procellariidae

Procellariidae

Coccyzidae

Coccyzidae

Phoeniculidae

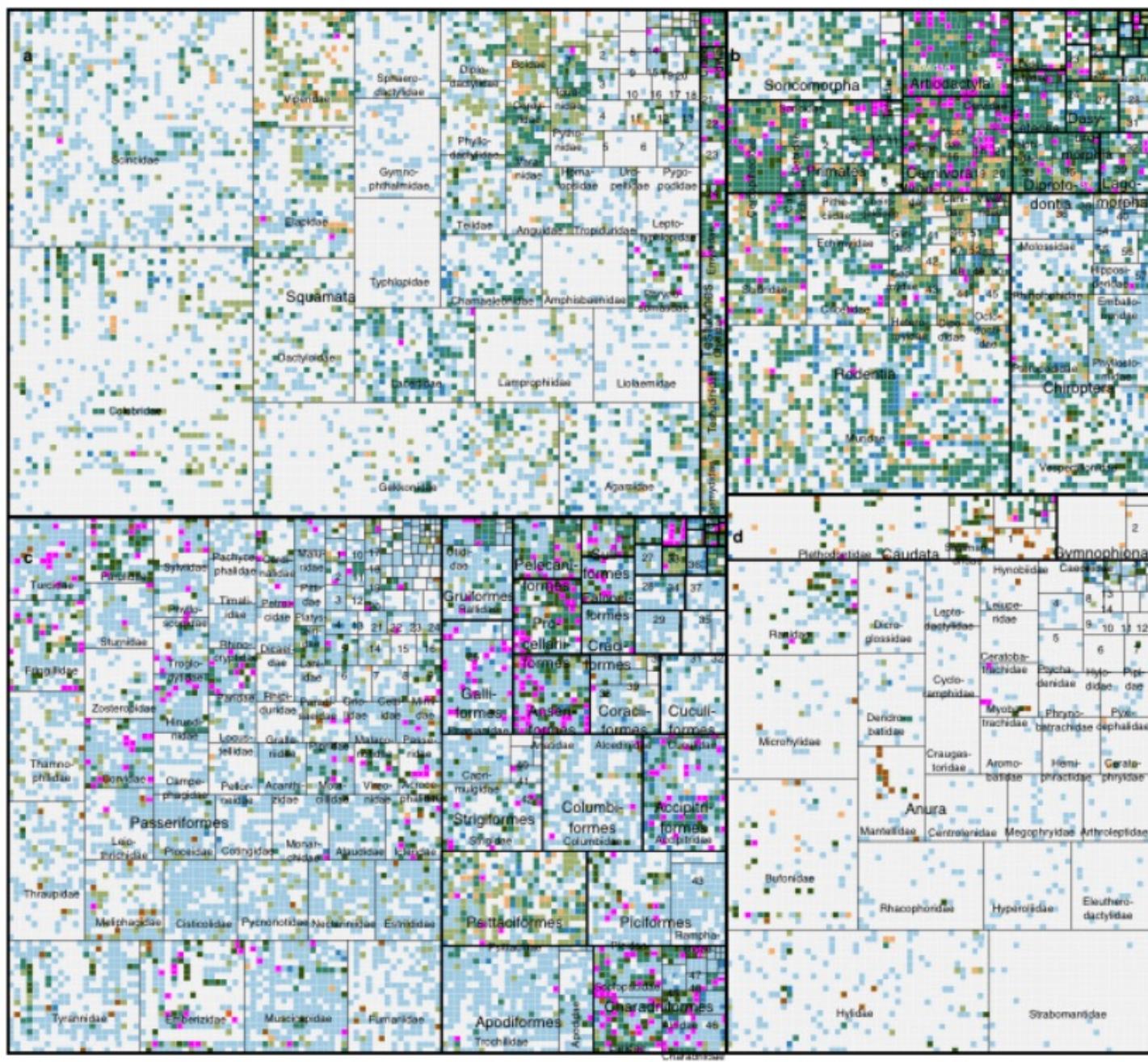
Phoeniculidae

Phoenophaeidae

Phoenophaeidae

Phoeniculidae

Phoeniculidae



Demographic
Knowledge of the worlds
tetrapods

800 % increase →

With ZIMS data



SPECIES
360

Species360 Ex Situ Holdings Now on the IUCN Red List

Ex situ data from Species360

DATA SOURCE

The information below is from [Species360's Zoological Information Management System \(ZIMS\)](#)

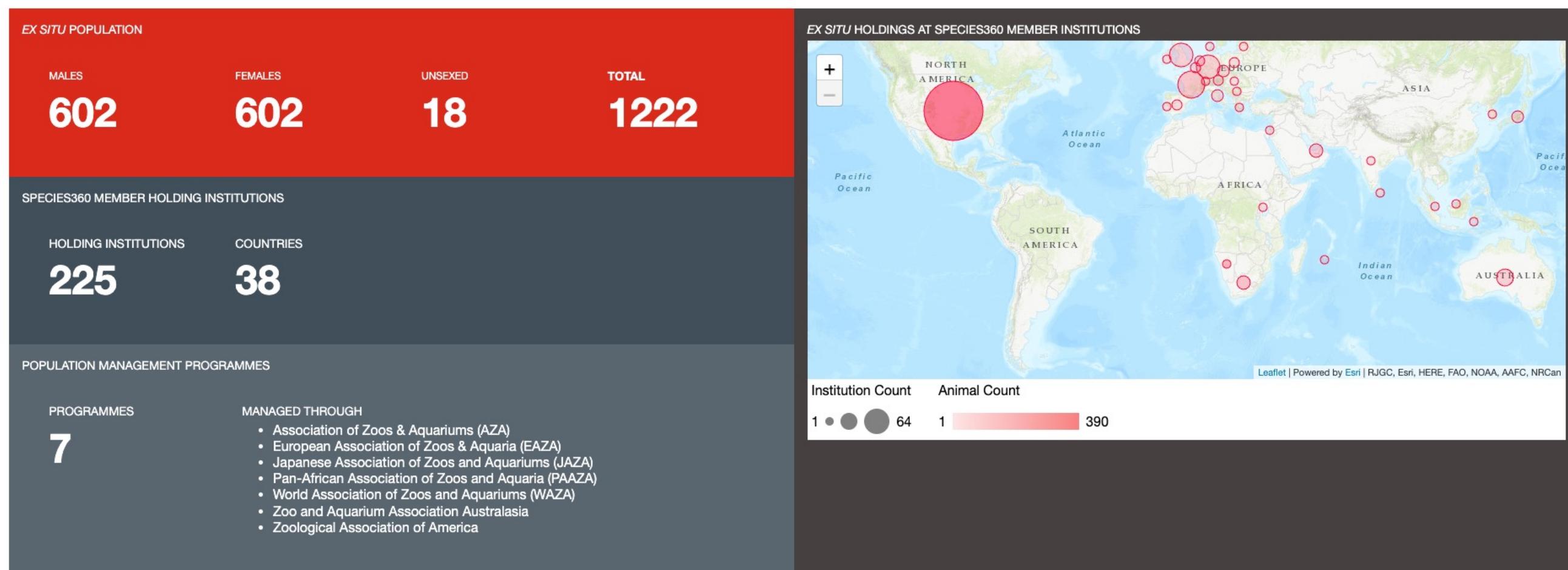
▼ Ex situ data from Species360 in detail

The IUCN Species Survival Commission position statement on the role of botanic gardens, aquariums, and zoos in species conservation acknowledges the important role *ex situ* facilities can play in species conservation. Species360 has partnered with the IUCN to demonstrate the scale of *ex situ* support for species.

This tab displays aggregated species holdings of Species360 *ex situ* members from the Zoological Information Management System (ZIMS), the most comprehensive dataset on animals under human care.

For more information on the role of *ex situ* botanic gardens, aquariums and zoos in species conservation, please visit the [IUCN SSC position statement](#).

For more information on Species360 and ZIMS data, please visit [Species360.org](#).





Thank you!



AFdPZ
ASSOCIATION FRANÇAISE
DES PARCS ZOOLOGIQUES



Basic Info	
Individual	GAN: 8062499 / Alive / Female
Local ID	[A13152/KANSASCTY][102284/ST LOUIS][GE2590/ORLANDO]
Subspecies	Pygoscelis papua ellsworthi / Gentoo penguin IUCN: NT Studbooks: EAZA, AZA, JAZA
Birth Location	Sea World Orlando
Birth Type	Captive Birth/Hatch
Birth / Age	13/11/1994 / 30 Years 3 Months 14 Days
Last Reported Holder	KANSASCTY
Last Reported Owner	ORLANDO

Identifiers																							
> -> Click here for details																							
Parent Info																							
<table border="1"> <thead> <tr> <th></th><th>GAN</th><th>Parent Info</th><th>Parent Type / Probability</th><th>Birth Date</th><th>Reported By</th></tr> </thead> <tbody> <tr> <td></td><td>11438838</td><td>ORLANDO / GE2523</td><td>Dam / 100 %</td><td>24/12/1986</td><td>[ORLANDO][ST LOUIS]</td></tr> <tr> <td></td><td>8062508</td><td>ORLANDO / GE2542</td><td>Sire / 100 %</td><td>22/12/1986</td><td>[ORLANDO][ST LOUIS]</td></tr> </tbody> </table>							GAN	Parent Info	Parent Type / Probability	Birth Date	Reported By		11438838	ORLANDO / GE2523	Dam / 100 %	24/12/1986	[ORLANDO][ST LOUIS]		8062508	ORLANDO / GE2542	Sire / 100 %	22/12/1986	[ORLANDO][ST LOUIS]
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Lengths																							
> -> Click here for details																							

Physical Holder History					
	Date	Term	Physical Sender	To	Reported By
1	13/11/1994	Birth/Hatch	-	ORLANDO / GE2590	ORLANDO
2	13/04/2003	Loan Out To	ORLANDO / GE2590	ST LOUIS / 102284	ORLANDO
3	14/04/2003	Loan In From	ORLANDO / GE2590	ST LOUIS / 102284	ST LOUIS
4	10/10/2013	Loan Transfer To	ST LOUIS / 102284	KANSASCTY / A13152	ST LOUIS
5	10/10/2013	Loan Transfer From	ST LOUIS / 102284	KANSASCTY / A13152	KANSASCTY

Rearing				
	Start Date	End Date	Type	Reported By
	14/04/2003	-	Parent	ST LOUIS
	13/11/1994	-	Parent	ORLANDO
	Prev	Page 1 of 1	Next	Page Size 20 Change

Ownership Transaction History					
	Date	Term	From Institution	To Institution	Reported By
1	13/11/1994	Birth/Hatch	-	ORLANDO / GE2590	ORLANDO
2	14/04/2003	Reported owner	-	ORLANDO / GE2590	ST LOUIS
3	10/10/2013	Reported owner	-	ORLANDO / GE2590	KANSASCTY

Taxonomy / Sex Type / Collection					
	Show All				
	Change Date	Type	Changed To	Reason	Reported By
	10/10/2013 12:00	Taxonomy	Pygoscelis papua ellsworthi / Gentoo penguin	Undetermined	KANSASCTY
	10/10/2013 12:00	SexType	Female	-	KANSASCTY
	14/04/2003 00:00	SexType	Female	-	ST LOUIS
	14/04/2003 00:00	Taxonomy	Pygoscelis papua ellsworthi / Gentoo penguin	-	ST LOUIS
	13/11/1994 00:00	Taxonomy	Pygoscelis papua ellsworthi / Gentoo penguin	-	ORLANDO
	13/11/1994 00:00	SexType	Female	-	ORLANDO
	Prev	Page 1 of 1	Next	Page Size 20	Change

Weights					
	Date	Measurement	Value	Measured By	Estimated Weight
	29/12/2023	Live weight	4.05 kilogram	-	
					KANSASCTY

- Basic Information (*Entity, GAN, Status, Sex, Local IDs, Species, IUCN & CITES Status, Birth Location, Birth Type, Birth Date, Age, Last Reported Holder, Last Reported Owner*)
- Physical Holder History
- Ownership Transaction History
- Parent Information
- Rearing
- Taxonomy / Sex Type

Data sharing – Globally shared by default

- Measurements (weights and lengths)
- Contraception
- Identifiers
- Census (for group records)
- Images
- Development Milestones
- Event Location
- Permits
- Life Stages
- Management Plan
- Select Note types



Data – External sharing

An institution can choose to share additional data with another institution

Medical data:

- Bronze Level Sharing record types:
 - Anesthesia
 - Physiological Measurements
 - Pathology (Necropsy/Biopsy)
- Silver Level Sharing record types:
 - Medical Issues/Diagnosis
 - Treatments
 - Health Status
- Gold Level Sharing
 - All other medical records (*except Private Clinical notes*)

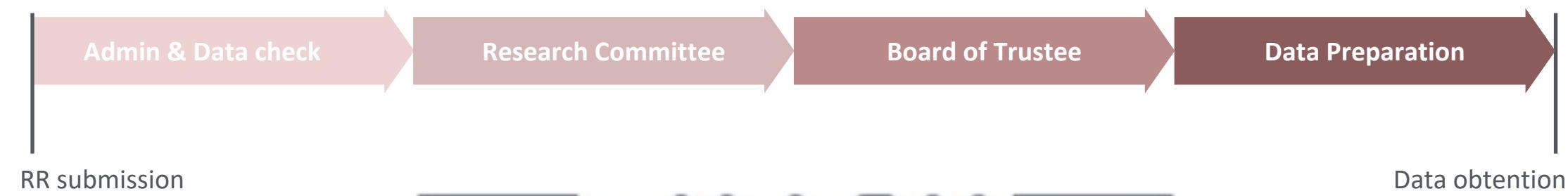
Husbandry data:

- Training information
- Feed logs
- Enrichment
- All note types

Research Request Process



Providing access to anonymized ZIMS data to improve the knowledge of species



Data Exporting

- 20+ husbandry data reports
- Save & share to other institutions
- Option to view local or global
- XML export

	Activity Report
	Animal Mortality Report
	Daily Report
	Enclosure Activity Report
	Enclosure Occupants Summary Report
	Enclosure Report
	Enrichment Session Report
	Global Permit Report
	Exports
	Inventory Detail Report
	Inventory Summary Report
	Loan Report
	Note Retrieval
	Peak Holding
	Permit Application
	Species Event History
	Specimen Report
	Taxon Report
	Transaction Report
	Wild Acquisitions Report
	Species Holding
	Age Distribution
	Weight Comparison Report
	TAG Export
	Population Overview
	Global Studbook Search Tool
	Taxon Profiles
	i-FAP Report
	SAFE For Chondrichthyes Census
	Export Data in XML Format

Data Exporting

- 20+ medical data reports
- Save & share to other institutions
- Global resources with aggregated data

	Complete Medical History
	Medical Caseload Management Report
	Calendar Items Report
	Anesthesia Summary Report
	Sample, Test & Result Report
	Weight Monitoring Report
	Daily Medical Activity Summary Report
	Pathology Case Report
	Unresolved Medical Issues Report
	Active Prescriptions/Treatments Report
	Medical Metrics Report
	Clinical Note File Copy Report
	Pharmacy Reports
	Anesthesia Summaries
	Drug Usage Extracts
	Test Results
	Morbidity & Mortality Analysis
	Sample Request Report
	Samples/Tests/Results Report
	Specified Test Report
	Medical Test Spreadsheet Report

Carcass Transactions



<https://tinyurl.com/Bell-Museum-hornbill>

- Users can record data related to a carcass disposition
- 99,438 death transactions have recorded data for a carcass (part or whole) being sent out
- Of those, 95% recorded a receiving institution

Thank you!

Species360's work is possible because of its members
and the data they have contributed over 50 years.

Contact us:

support@species360.org



SPECIES
360