



2026 Macao Biodiversity Data Science Challenge Regulations

Foreword

To enhance the interest of Macao students and the public in biodiversity and encourage their participation in citizen science activities, the “2026 Macao Biodiversity Data Science Challenge” aims to enhance public understanding and appreciation of the biological world through hands-on experience. By integrating scientific literacy with environmental awareness, the Challenge seeks to foster a deeper sense of responsibility for ecological conservation while promoting sustainability consciousness. The Challenge will be synchronized with the global “City Nature Challenge” (CNC) and contribute to the collection of biodiversity data in Macao region and on a global scale.

Organizers: Sands China, Macao Science Center

Eligibility:

Primary or Middle School Students and residents of Macao are eligible to participate

Competition Categories:

1. Individual Challenge
2. Individual Challenge - Science Popularization Training and Warm-up Competition
3. Individual Challenge - Ongoing Observation Competition
4. Inter-school Team Challenge

Information Session, Results Announcement and Award Ceremony

1. Information Session: Feb 13 2026, 17:30-18:30 at Macao Science Center’s Convention Center
2. Results Announcement: Mid-July 2026 (Only winners will be notified)
3. Award Ceremony: Late-July 2026 (Venue and time will be announced shortly)

Competition Information

Individual Challenge
Terms of Entry
<ol style="list-style-type: none"> 1. Participants may compete individually and are categorized into two categories: <ul style="list-style-type: none"> • Student Category • Open Category
Competition Content
<p>Conduct a biodiversity survey in Macao region on any day between April 24 and April 27, 2026. Observe and document Macao wildlife species, and upload the photos to iNaturalist app.</p> <p>Note: Steps to complete before registration and data submission:</p> <ol style="list-style-type: none"> 1. Download and register on iNaturalist app: <ul style="list-style-type: none"> • Participants must download the iNaturalist app and complete the registration. • The email used for registration should be the same email as the Google Form registration to ensure accurate data tracking. 2. Complete Google Form Registration



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- After registering the iNaturalist app, participants could fill in the Google form and register for the Challenge.
- Participants must fill in their user IDs of iNaturalist app, along with email and phone number for further contact and data tracking.
- If multiple forms are submitted, only the most recent submission will be considered as the final data.

Support Resources

1. Macao Science Center offers training courses and online educational resources to assist in mastering survey techniques.
2. Teacher training course:
 - Session 1: March 7, 2026(10:00 - 13:00;14:30 - 17:30)
3. Transportation will be arranged for Student Category on the date of competition, providing round-trip service from their school to the designated survey area.

Judging Criteria - Research Grade

1. Only species that meet the research level will be taken into account for grades.
Research grade and data requirements:
 - Basic information: The observation date, geographical coordinates, and clear photos and sound recordings must be recorded.
 - Observation group: Must be wild species (populations naturally existing in the wild, not farmed or cultivated).
 - Community identification: At least two identifiers (including the observer) must reach a consensus, and the identification must be at the species level.
 - Data quality: The observation record must not be flagged with any data quality issues.
2. Citizens' Scientific Literacy:
 - The research level assessment requires reference to reliable research materials (such as literature, illustrations, expert appraisal photos, etc.), therefore, it is essential for the participants to conduct the assessment diligently.

Awards

1. Each category will feature Gold, Silver, and Bronze awards, in the form of physical awards and electronic certificates. And the awards will be distributed according to the research grade and number of species studied by the participants.
2. Special awards will be given for outstanding contributions in different species categories, which include: Plants, Fungi, Fish, Insects, Amphibians and Reptiles, Birds, and Mammals, in the form of physical awards and electronic certificates.
3. Students who successfully document over 50 species will be eligible for a special reward (electronic certificates).
4. The school with the highest total number of species documented will receive an award, in the form of physical awards and electronic certificates.

Individual Challenge - Science Popularization Training and Warm-up Competition

Terms of Entry



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Participants may compete individually, without being grouped into any category.
Competition Content
<p>The Competition includes science popularization training and warm-up competition.</p> <ol style="list-style-type: none"> 1. Science Popularization Training: Participants may choose to attend online training (links will be provided upon successful registration) or offline training; the content covers competition objectives, rules, tools, and participation methods. Session 1: March 8, 2026(10:00 - 13:00) Session 2: April 11, 2026(10:00 - 13:00) 2. Warm-up Competition: Following the completion of the offline science popularization training , a 90-minute warm-up competition will be conducted, up to 50 participants per session, with each team up to 5 participants. <ul style="list-style-type: none"> • Exploration phase (30 minutes): Observe biodiversity around Macao Science Center. • Identification phase (60 minutes): The team will identify and analyze the observations, and the experts and staff of the Organizers will demonstrate effective identification methods. • Enrolment is on a first-come-first-served basis.
Judging Criteria
Based on the quality of species records created by participants during the Competition
Awards
Three teams in each session will receive Gold, Silver, and Bronze awards (a total of six awards for both sessions). The winning teams will be announced immediately after the Competition and the awards will be officially presented at the Closing Ceremony.
Individual Challenge - Ongoing Observation
Terms of Entry
Participants may compete individually and will not be grouped into categories.
Competition Content
To encourage participants to conduct long-term and ongoing biodiversity observations, the Ongoing Observation Excellence Award will be presented to recognize individuals that have maintained the longest observation period and submitted high-quality data from the date of the Competition information release (March 1, 2026) to the end of CNC 2026 (April 30, 2026).
Judging Criteria
<ol style="list-style-type: none"> 1. Only species that meet the research level will be taken into account for grades. 2. The overall score is calculated based on a combination of participant’s observation duration and data quality.
Awards
The top three in the overall score will receive Gold, Silver, and Bronze awards, in the form of physical awards and electronic certificates.
Inter-school Team Challenge
Terms of Entry
<ol style="list-style-type: none"> 1. Participants must be students in Macao during the Challenge.

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2. School teams, with each team up to 5 members (excluding instructors).
3. Each team may be led by up to 2 instructors, and instructors may guide more than one participating team.
4. Each school may send up to 4 teams to participate.

Competition Content

1. Session I: Analyze the biodiversity data in Macao for the years 2025 and 2026:
The analysis can be performed on the data of the entire Macao or a specific part thereof, for example:
 - Calculating biodiversity indices (e.g., Shannon-Weiner Index, Simpson Diversity Index)
 - Identifying dominant, rare, and ecological indicator species.
 - Create science popularization maps of biodiversity to demonstrate the spatial distribution of one or more species with ecological value.
2. Session II: Advanced data science and analytics:
Participants can choose their topics freely, such as analyzing interactions between species, predicting the impact of climate change on biodiversity, exploring the ecosystem functions and services provided by biodiversity, and studying the relationship between biodiversity and environmental data. Recommendations for biodiversity and ecological environmental conservation must be proposed.
3. Academic poster (A0 size): Present scientific questions, data analysis, and findings in detail, with clear text and species spatial distribution maps, with clear text and species spatial distribution maps (Distribution maps must be uploaded as a separate file with a resolution of 300 dpi).
4. Science video (no more than 5 minutes): Illustrate biodiversity and environmental data analysis findings, and propose recommendations for biodiversity and ecological environmental conservation. The score is based solely on the content within the specified time frame.
5. Please submit your work to the following link between May 18 and July 3 (Before 18:00), 2026.
 - May 18, 2026 Data will be sent to the team instructors.
 - Academic posters and science videos can be created by using AI tools for data analysis and presentation, but it is essential to label the work as “AI tools used”.

Support Resources

1. Macao Science Center offers training courses and online educational resources to assist in mastering survey techniques.
2. Teacher training course:
 - Session 2: May 23, 2026(10:00 - 13:00;14:30 - 17:30)
 - Registration link: see Individual Challenge — Registration Link

Judging Criteria

1. Contribution to the scientific analysis of biodiversity data: 50%
2. Quality and impact of the academic poster and science video: 50%

Awards

1. The top three in the overall score will receive Gold, Silver, and Bronze awards, in the form of physical awards and electronic certificates.
2. The fourth to tenth places in the overall score will receive Outstanding Awards, in the form of physical awards and electronic certificates.

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Registration Form

Information Session	Registration Deadline	Registration period: February 2 to February 12 (Before 18:00), 2026
	Registration Link	https://forms.gle/ejeejy3znBKxgBqAA
Individual Challenge	Registration Deadline	<ol style="list-style-type: none"> 1. Individual Challenge <ul style="list-style-type: none"> • Registration period: February 2 to April 12 (Before 18:00), 2026 2. Science Popularization Training and Warm-up Competition <ul style="list-style-type: none"> • Registration period(Session I): February 2 to March 6 (Before 18:00), 2026 • Registration period(Session II): February 2 to April 10 (Before 18:00), 2026 3. Ongoing Observation <ul style="list-style-type: none"> • Registration period: February 2 to April 12 (Before 18:00), 2026 4. Teacher training <ul style="list-style-type: none"> • Registration period(Session I): February 2 to March 5 (Before 18:00), 2026 • Registration period(Session II): February 2 to May 20 (Before 18:00), 2026
	Registration Link	https://forms.gle/QW3nCA28gueLDFXCA
Transportation Registration	Registration Deadline	Registration period: February 2 to April 12 (Before 18:00), 2026 Note: <ul style="list-style-type: none"> • You will receive a reply email after successful registration • Transportation service for the Student Category is available, with locations as follows: Hac Sa Reservoir, Taipa Grande, Taipa Pequena, Wetlands in Avenida da Praia, Guia Hill, and Mong Ha Hill. • On a first-come first-served basis.
	Registration Link	https://forms.gle/KaQ9evidrV3EodiP8
Inter-school Team Challenge	Registration Deadline	Registration period: February 2 to May 10 (Before 18:00), 2026
	Registration Link	https://forms.gle/oCDJTR1MsoiLHXw29

Other Provisions



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1. The species to be identified must be wildlife species, which may include plants, fungi, fish, insects, amphibians and reptiles, birds, and mammals.
2. Do not submit photos of selfies, pets, indoor or outdoor potted plants and do not use these photos as research-level references without verification, as it may affect the authenticity and accuracy of the database.
3. Protect and preserve nature, please try to reduce your interference with the environment, animals and plants during the competition.
4. Data analysis and findings must be supported by relevant scientific literature and environmental reports to substantiate the analysis and interpretations.
5. Individual Challenge: Each participant may submit multiple photos. Do not share or upload photos taken by others.
6. Team Challenge: Each team can submit only one entry, and the same entry can only be submitted once. Once an entry is submitted, it cannot be modified, exchanged, or withdrawn.
7. The entry must not contain any pornography, violence, or religious issues and should not infringe any law.
8. Each entry submitted must be the participants' original creation that has never been published or adopted for using by other institutions. No plagiarism is allowed. Otherwise, apart from the potential legal responsibility of the participants, the Organizers has the right to take back the award of any disqualified participant.
9. If the entry includes content that is not copyrighted by the participant, the source must be clearly indicated at the end of the entry, and the source of the material used must also be listed when submitting the entry to the Organizers.
10. The language (or textual description) of the entries may only be in Chinese or English.
11. The participants must comply with the Personal Data Protection Act. In particular, if an entry includes the image of a person, the participant must obtain that person's consent in advance (except when capturing a street scene in a public area without focusing on a specific individual).
12. The copyright and other rights of the entries will be transferred to the Organizers once an award is given.
13. The copyright and all derivative rights and benefits of the winning entries shall belong to the Organizers.
14. The Organizers can use all submitted entries for promotional purposes and activities related with the Competition without paying or notifying the participants.
15. Upon completion of the registration process, all participants shall be deemed to have accepted the rules and regulations of the Competition and its results.
16. If any entry is deemed by the adjudication panel to fall short of the competition standards, the Organizers reserve the right to withhold the award.

Adjudication Panel

1. The adjudication panel will comprise of experts in the fields of environmental science and biodiversity with representatives of the Organizers.
2. Subject to the decision of the adjudication panel, some Awards may not be given out.

Disclaimer



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1. All submitted entries that fail to comply with the rules set out in these regulations will not be assessed by the adjudication panel. The Organizers will not individually inform the participant.
2. The Organizers will not be responsible for any damage, lost, incompleteness, illegibility, delay and misplacement of any submissions that is not caused by the Organizers, and the Organizers will not individually inform the participant of such problems.
3. The Organizers may at its discretion cancel, terminate, modify or suspend the competition and disqualify any participant for misconduct.
4. In the event of any disputes, the Organizers reserve the right of final decision. The information posted on the Website shall prevail over any amendments in the event of any inconsistency.

Contact and Inquiries

1. For more information, please visit the website of the Macao Science Center website: www.msc.org.mo.
2. For any inquiries, please email silvialio@msc.org.mo, or call 87957259 (Ms. Lio).
3. All personal data collected for the Competition will be used solely for purposes related to the event and will be destroyed after the Competition concludes.