

Accreditation Process and Standards of the Latin American Association of Zoological Parks and Aquariums (ALPZA)

4th Edition 2020 - 2021



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Relevant changes in the different editions

2nd Edition (2018-2019)

G-1 New SAW-38 Priority Change

SG-15 Priority change SAW-39 New

SV-3, 4, 5, 6 and 7 Drafting review SAW-41 New

SAW-42 Priority Change SW-11 Drafting Review SW-21 Priority change SAW-44 Priority Change SW-20, 21, 22, 23, 24, 25 and 26 Drafting review SAW-57 Priority Change

SW-36 New SAW-57 and 58 Drafting Review

SA-5 New EC-2 Priority change

SAW-3 Priority Change EC-3 Priority change

SAW-31 Priority Change EC-5 New

SAW-35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46 C-1 Drafting review

Drafting Review C-2 New

SAW-35 Priority Change S-1, 2 and 3 New

3rd Edition (2019-2020)

G-2, 3, 4, 5, 6 and 7 Drafting review SW-12 New

G-4 New SW-13 New G-5 New SW-14 New G-6 New SW-15 New G-7 New SW-16 New

G-8, 9 and 10 Drafting review SW-17 New G-9 Priority change SW-18 New SG-1, 2, 3 and 4 Drafting review SW-19 New

SW-29, 30, 31, 32, 33, 34 and 35 Drafting review SG-2 New

SW-49 New SG-5, 6, 7 and 8 Editorial review SG-8 New SW-50 New SW-51 New

SG-11 and 12 Priority change SG-13 and 14 Drafting review SW-52 New

SG-21 Priority change SA-1, 2, 3, 4 and 5 Drafting review SG-22 Priority change SA-9, 10, 11 and 12 Drafting review

SV-1 Drafting Review SA-12 New SV-3 Drafting Review SA-14 New

SV-4, 5, 6, 7, 8, 9, 10 and 11 Drafting review SAW-1 Drafting Review SV-5 New SAW-2 Priority Change

SV-7 Priority change SAW-6 Drafting Review SV-9 New SAW-11 Priority Change SV-10 New SAW-12 Drafting Review

SV-11 New SAW-13 New

SW-6, 7, 8, 9, 10 and 11 Drafting review SAW-15 Priority Change SW-8 Priority change SAW-16 Priority Change SW-9 New SAW-17 Priority Change

SW-10 Priority change SAW-18, 19, 20, and 21 Drafting Review



SAW-18 Priority Change SAW-52 Priority Change

SAW-19 New SAW-66, 67, 68, 69, and 70 Drafting Review

SAW-23 Priority Change SAW-69 New SAW-26 Drafting Review SAW-70 New

SAW-27 Drafting Review SAW-76 Priority Change SAW-28 Drafting Review SAW-32 Topic change SAW-31 Drafting Review SAW-31 Drafting Review SAW-79 Priority Change SAW-79 Priority Change

SAW-33 Drafting Review EC-1, 2, 3, 4, 5 and 6 Drafting review

SAW-34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, EC-4 New

46, 47, 48, 49, 50, and 51 Drafting Review EC-5 Priority change

SAW-34 Priority Change EC-6 New SAW-36 New EC-7 New SAW-38 New EC-8 New

SAW-39 New EC-9 Drafting review SAW-40 New EC-10 Drafting review

SAW-41 New C-1, 2, 3 and 4 Drafting review

SAW-42 New C-2 New SAW-43 New C-3 New

SAW-44 New C-5 Drafting review
SAW-45 New C-6 Priority change
SAW-46 New C-11 Drafting review
SAW-47 New S-1, 2 and 3 Drafting review

SAW-49 New E-1 Priority change
SAW-49 New E-2 Priority change
SAW-50 New E-3 Priority change

SAW-51 New I-1 New SAW-52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, and I-2 New 63 Drafting review I-3 New

4th Edition (2020-2021)

G-1 New C-13 New

G-2 New C-14 Code change
G-3 New C15 and 16 code change

G-4 New S-4, 5, 6, 7, 8 and 9 Code change

G-5 Code change S-10, 11 and 12 Code change

G-6 New S-13 New G-7, 8, 9, 10, 11 and 12 Code change S-14 New G-13, 14 and 15 Code change S-15 New

C-1 New S-16 New C-2 Priority change SG-32 New

C-4 New SG-33 New

C-5, 6 and 7 Code change SW-20, 21, 22, 23, 24, 25, 26 and 27 Code change SW-28, 29, 30, 31, 32, 33 and 34 Code change

C-10 Code change SW-35, 36, 37 and 38 Code change SW-39, 40, 41, 42 and 43 Code change



SW-44 Code change

SW-45, 46, 47 and 48 Code change

AW-1 New

AW-2 Code change

AW-3 New

AW-4 Code change and redaction

AW-5 New

AW-6 New

AW-7 New

AW-8 New

AW-9 New

AW-10 New

AW-11 New

AW-12 New

AW-13 Code change

AW-14 New

AW-15 Code change

AW-16 Code change and redaction

AW-17 New

AW-18, 19 and 20 Code change

B-21 Code change

AW-22 Code change and redaction

AW-23, 24, 25, 26, 27, 28 and 29 Change of

wording

AW-28 and 29 Code change

AW-30 Code change and redaction

AW-31 Change code

AW-32 Code change and redaction

AW-33 New

AW-34 Code change and redaction

AW-35 Code change and redaction

AW-36, 37, 38 and 39 Code change

AW-40, 41 and 42 Code change

AW-43, 44, 45 and 46 Code change

AW-47, 48 and 49 Code change

AW-50 Code change

AW-51 Code change

AW-52 Code change and redaction

AW-53 Code change and redaction

AW-54 and 55 Code change

AW-56, 57 and 58 Code change

AW-59 Code change and redaction

AW-60 Code change

AW-61 Code change and redaction

AW-62 Code change and redaction

AW-63 Code change and redaction

AW-64, 65 and 66 Code change

AW-67 Code change and redaction

AW-68 Code change

AW-69 Code change and redaction

AW-70 Code change and redaction

AW-71 Code change

AW-72 Code change and redaction

AW-73 and 74 Code change

AW-75 Code change and redaction

AW-76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87,

88, 89, 90, 91 and 92 Code change

Note: The 2020-2021 edition of the "Process and Standards of Accreditation from the Latin American Association of Zoological Parks and Aquariums (ALPZA)" is valid to apply for ALPZA accreditation in the years 2020 and 2021. To apply in the years 2021-2022, you should consult the current edition for that date.



Steps in the Accreditation Process

| STAGE | DETAIL | SCHEDULE |
|--|--|--|
| 1. Request | The interested institution sends the formal application for the APPLICATION TO THE PROCESS to ALPZA's Executive Office. | Anytime |
| Conformation of the team of inspectors | Once all the documentation has been received, the Accreditation and Ethics Committee together with ALPZA's Executive Office will make up the team of inspectors and assign a team leader, based on the list of CERTIFIED INSPECTORS. | 15 calendar days after the receipt of all documentation |
| 3. Inspection visit | The Executive Office and the interested institution schedule the inspection date. The team of inspectors carries out the visit and issues a list of observations. | Any time after introducing the inspection team. |
| Correction of observations | The inspected institution sends to the lead inspector all corrections made to the observations generated during the inspection visit. | Immediately after the inspection, and up to 6 months after the inspection. |
| 5. Audience | The Accreditation Commission reviews the process of the applicant institution and determines the result. | At the time the Commission meets. |
| 6. Delivery | The Presidency and the Accreditation and Ethics Committee recognize the new accredited institution. | It is sent immediately digitally, and it is delivered in physical form during the ALPZA Congress |

Note: When starting the process, it is not necessary to wait for the deadlines to move forward, so they will have more time to make corrections to the observations made by the inspectors.

All communications regarding the Accreditation Process with the Executive Office must be made via institutional email. The response times will be from Monday to Friday from 9:00 a.m. to 6:00 p.m. Chile.



ALPZA Accreditation Standards

The ALPZA Accreditation standards have been created by professionals from member institutions of the Latin American Association of Zoological Parks and Aquariums (ALPZA). These standards represent decades of knowledge, experience and modernization of best practices for zoological operations.

The standards are framed in the ALPZA Accreditation Program, which provides all <u>zoos and aquariums</u> in Latin America the opportunity to review their practices and guarantee their quality and standardization.

The Accreditation process combines internal evaluations (self-diagnosis by contrasting practices with the standards presented in this document) and external evaluations (inspection visit by professional peers). As a result of this process, it is expected to guarantee the excellence of zoos and aquariums in seven thematic areas.

| TOPICS | NUMBER OF INDICATORS | PRIORITY LEVEL |
|----------------------------|----------------------|--|
| General | 15 | 14 Critical 1 Important 0 Desirable |
| Research | 3 | 1 Critical2 Important0 Desirable |
| Conservation | 16 | 5 Critical 9 Important 2 Desirable |
| Education for Conservation | 10 | 6 Critical 3 Important 1 Desirable |
| Sustainability | 16 | 10 Critical 6 Important 0 Desirable |
| Security | 104 | 78 Critical 23 Important 3 Desirable |
| Animal Welfare | 92 | 63 Critical 25 Important 4 Desirable |

In relation to the ALPZA Accreditation Program, the standards have 3 priority levels that define the percentage of compliance that they must have for a zoological institution to be accredited:

-Critical: 100% compliance

-Important: Over 70% compliance -Desirable: Over 50% compliance



Standards

1. General Standards (G)

Every institution must have clear objectives in accordance with its philosophy. These objectives are developed through the various <u>programs</u> carried out by the institution, which must be aligned with the Code of Ethics, Guidelines and other documents that govern the Latin American Association of Zoological Parks and Aquariums (ALPZA).

G-1, G-2 and G-3 Organizational philosophy, mission and vision.

Every institution must have a mission and vision, to govern their work and give it congruence. This is an element of great importance for organizations in general, since it defines the principles, the objectives to be met and allows guiding and motivating the team of workers of the institution.

G-4 Institutional organization chart.

Every institution must have an organization chart that graphically represents its hierarchical structure. It should include departmental structures, dependency relationships and a brief description of the objective of each position.

G-5 y G-6 Animal population plan.

In order to direct the efforts and resources of the institution, and work for <u>animal welfare</u>, conservation and education, it is necessary to have an <u>Animal Population Plan</u>. This must contain a detailed, ordered and updated list of the animals kept at the institution, and the candidate species to be acquired. The animal population plan must ensure that the species it considered, should count with an appropriate <u>environment</u> and <u>handling</u>; this includes decisions about reproductive management. Ideally, priority should be given to species that have conservation, education and research value, and that are attractive to visitors. The institution must have an Animal Population Plan that is consistent with its mission, vision and objectives. This document should be updated at least every five years.

The population plan allows the development of management plans by species; the latter defines the integral management of the present and future species (reproduction plan, specific environmental and nutritional requirements for the species, etc.), promoting continuous improvement in the management of the animal population.

G-7, G-8, G-9, G-10, G-11 y G-12 Policy for the acquisition and disposal of animal and plans.

The origin and transaction of animals and plants must be legal, documented and ethically managed; promoting individuals from the institution going to other institutions which also take care of the animal welfare. At no time the institution can participate or encourage illegal wildlife trafficking. The ALPZA Code of Ethics and the IUCN Guidelines for the disposal of confiscated animals must be obeying.

In the case of <u>collection</u> of organisms, institutions must have the respective permits issued by the corresponding environmental authority according to the country's legislation, and comply with the commitments established in the ALPZA Code of Ethics.

In the case of aquariums or institutions that have aquatic animals, if the animals are acquired through a purchasing process, it must be ensured that the supplier uses sustainable capture techniques and that it has the respective permits for such activity.

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G-13, G-14 y G-15 Identification and registration of individuals

In order to provide individual monitoring and attention to each animal in the population, it is very important to have methods for individual or population <u>traceability</u>, genetic-demographic records and records that allow the measurement of animal welfare, or those that report important animal handling events on the premises, and in other facilities; complying with the legal requirements of the country.

For most organisms in aquariums, individual marking of specimens is not a conventional option and for some it is practically impossible to have a physical marking; however, in many aquariums there is an identification of specimens or groups of specimens through photographs or individual recognition. In the case of marine mammals, sharks, rays, etc., if chip identification is possible, it should be required.

In the case of amphibians, for certain species or individuals, individual marking can be very complex, so photographs can be used when the organisms present patterns of coloration or spots that can help in their identification. In the event that very large groups are handled, and the species does not allow the recognition of patterns of coloration or spots, it is possible to manage them in groups, identifying the enclosures in which each group is housed.

2. Research (R)

Scientific research is an important pillar in the activity of modern zoos and aquariums. Both, knowledge generation and scientific dissemination are essential tools for the development of <u>efficient</u> conservation projects and for the improvement of animal welfare conditions.

R-1, R-2 y R-3 Research development.

It is essential that every institution has a clear policy, or a research program for conservation, that is consistent with the ALPZA Code of Ethics, and that does not compromise animal welfare.

In order to promote the development of research, it is important to have at least one person who has this responsibility within their functions. The knowledge generated from the research must be disseminated and made available to the community for the benefit of conservation efforts.

3. Conservation Standards (C)

The World Association of Zoos and Aquariums (WAZA) define conservation as: ensuring the long-term survival of populations of species in their natural habitats. ALPZA, in cooperation with other organizations, works with a comprehensive approach through significant programs that conserve the different wild populations and the immense biodiversity of the region, in harmony with the human being. Taking into account that the members of ALPZA carry out permanent activities in favour of the conservation of biodiversity, the Association has guidelines to govern and organize their projects, and to the extent that they comply with these guidelines, they are recognized and certified as ALPZA Conservation Projects.

C-1, C-2, C-3, C-4 y C-5 Conservation Projects.

The institution must have or participate in at least one conservation project or action. Ideally, you should have a professional hired to lead these initiatives and they should be evaluated.

It is important that the institution manage and organize its conservation efforts, following the guidelines of the ALPZA Conservation Project Certification Process; with the aim of seeking said certification.

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C-6 y C-7 Alliances for conservation.

It is important that the institution has partners or allies (researchers, universities, NGOs or government entities) to strengthen the impact of <u>conservation actions</u>. Those institutions that have one or more species for which there is a national or international conservation program, must participate in them.

C-8 y C-9 Resources.

The institution must have a strategy to ensure the funds required to support conservation work and / or qualified technical personnel, equipment and supplies, for the development of conservation actions or projects.

C-10 y C-11 Rescue and rehabilitation.

The institutions that participate in wildlife <u>rescue</u> and <u>rehabilitation</u> programs must follow the country's regulations and the ALPZA Code of Ethics.

C-12 y C-13 <u>Translocation</u>.

Actions that involve the transfer of an individual from one site to another, for the conservation of a species or its ecosystem, must follow the IUCN Guidelines for <u>reintroduction</u> and other <u>translocations</u> for conservation purposes.

C-14 Dissemination of results of conservation projects and actions.

The dissemination of the results of conservation activities in the academic sphere, in the community associated with such activities and in society in general, is essential to communicate the importance of zoological institutions and their contribution to maintaining biodiversity.

C-15 y C-16 Development of In situ education efforts for conservation with communities.

Conservation education activities with the communities associated with the project or action must have a clearly defined objective and integrate the key community stakeholders.

4. Education for Conservation Standards (EC)

Because of the commitment and responsibility that comes with keeping animals outside the wild, education becomes one of the most important components of a modern zoo or aquarium. This should be addressed to all the people who visit and work within a zoological institution; seeking to connect the human being with the natural environment, making efforts to promote habits and actions that positively impact nature.

EC-1, EC-2, EC-3, EC-4, EC-5 and EC-6 Education for Conservation Plan.

Every institution must have a document that describes its mission and vision within which education is incorporated as an integral part of the conservation strategy. In turn, it must have a systematized general educational plan that describes the basic guidelines of the educational proposals of the institution.

This plan is of great importance to facilitate the work, organization and development of education initiatives integrated into the institutional mission and vision. Said plan must be led by a trained person with the appropriate educational degree to carry out this function.

The execution of the plan should be in charge of educators, ideally forming an interdisciplinary group with relevant experiences and knowledge to facilitate the learning processes of the target groups.

The plan must have educational programs that contain:

- Identifying and differentiating the different target groups towards whom each educational program is directed (e.g. school groups, indigenous people, gerontic, family groups, workers of the institution, etc.).
- Defined objectives.

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- Activities that allow achieving the established objectives.
- Specific educational strategy for each of the identified groups.
- Evaluation method with indicators that allow measuring the fulfilment of the proposed objectives. It is necessary to consider that the evaluation must be permanent and have a specific method. The results should be used to adjust practice.
- Necessary resources (human and material).
- Budget.

EC-7 and EC-8 Relationship of the educational component with the commitment to sustainable management.

The 2030 Agenda for Sustainable Development and its 17 objectives encourage us, as zoological institutions and aquariums, to contribute to the achievement of the proposed goals. Internal training programs and educational programs aimed at visitors should actively work to communicate and share the purposes and achievements of the institution's sustainability actions, as a way of showing coherence between the organization's operation and the change in behavior that is required of visitors.

EC-9 Educational dissemination.

The institution must have the necessary educational and/or interpretive supports, so that the visitor knows the diversity of both national and international species, emphasizing the dissemination of threats that place them in some category of risk (e.g. posters, brochures, poster, explanatory audios, games, videos, documentaries, etc.).

EC-10 Participation in the design of the institution's habitats and enclosures.

The design of all infrastructures present in the institution, and that is within the reach of the visitor, must have the creative contribution of the educational area, which also helps to unify the conservation message to be transmitted.

5. Sustainability Standards (S)

Currently, zoological institutions and aquariums are committed to developing all their activities under the premise of sustainability, which proposes the satisfaction of the needs of the current generation, but without sacrificing the capacities of the following generations to satisfy your own needs.

S-1, S-2 and S-3 Sustainability Strategy.

- Institutions must incorporate sustainable work as a natural characteristic of their processes; implementing strategies to reduce its environmental impact. The commitment to sustainability must be reflected in a strategy, written and disseminated, which at least includes:
- Water saving strategies.
- Strategies for waste reduction, specifying the elimination of the use of polyethylene, single use plastic including straws.
- Strategies for saving and efficient use of energy.
- Mechanisms of measurement or evaluation.
- Short, medium and long term goals, indicating the time for their fulfillment.

S-4, S-5, S-6, S-7, S-8 and S-9 Management of affluents and effluents.

It is extremely important to have protocols that indicate the entry of quality water for replacement, as well as the proper disposal of reject water. It is especially important in waters where chlorine, ozone, conditioners, or any chemical is used during aquarium operation, particularly in quarantines, treatment areas and drug use.

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Protocols must guarantee sanitary and biological barriers to prevent the entry of unwanted agents, and the exit of species considered "exotic" because they are outside their range of distribution and are potentially harmful to the environment.

S-10, S-11, S-12, S-13 and S-14 Management of hospital waste and similars.

Hospital waste and similars pose a risk to human health and the environment. Currently, a significant percentage of the waste generated in animal health services is dangerous due to its infectious, reactive, radioactive and flammable nature. That is why the Comprehensive Hospital Waste Management Programs and similar should be a priority in zoological institutions through which the parameters and protocols for the management of corpses, infectious material and <u>dangerous chemical substances</u> which must be managed and be arranged in accordance with current local regulations on this matter.

S-15 Decrease in solid waste generation.

The generation and poor disposal of solid waste, a product of current human activity, causes negative environmental impacts. Zoological institutions, parks and aquariums have the opportunity to reduce said environmental impact by generating initiatives and concrete mitigation actions to minimize and / or eliminate the use of disposable materials.

S-16 Carbon Footprint.

Every activity carried out emits a <u>carbon footprint</u> (CO₂ released into the atmosphere). Currently, zoological institutions are committed to reducing their negative impact on the environment; the carbon footprint makes it possible to measure and evaluate the efficiency of the measures implemented to reduce it.

6. Security Standards

Risks to visitors, workers, animals, and facilities must be anticipated, addressed, and documented. It is necessary to carry out a risk analysis, based both on the experience of the institution and on the careful study of potential risks, and establish the methodology to respond effectively to any <u>emergency</u> situation.

6.1. General Safety Standards (SG)

To respond effectively, it is necessary to have basic and common tools to deal with any emergency, for which planning is the basis for success.

SG-1, SG-2, SG-3 and SG-4 Risk Analysis and Civil Protection Plan.

There must be a study of the risks that may occur in the institution. The risks inherent to the facilities (e.g. bodies of water, store of flammable products, etc.) must be considered; animals (e.g. poisonous species, large carnivores, large cetaceans, sharks, etc.); natural catastrophes according to the characteristics of the area (e.g. earthquakes, floods, hurricanes, etc.), medical-human emergencies, lost minors, etc. The Risk <u>Analysis</u> must be reviewed and updated at least every three years, or when there are modifications to the animal population or infrastructure that influence said analysis.

Based on the risk analysis, the institution must have a civil protection plan or a general emergency care plan. This must reflect the actions that the staff must take to resolve the different types of emergencies that may arise. All staff should know how to react as indicated, including contractors, suppliers, etc. This plan must be updated after each Risk Analysis review.

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SG-5, SG-6, SG-7 y SG-8 Emergency response brigade.

There must be a group to attend and resolve emergencies. This group must be made up of people who are trained to face any of the possible emergencies that have been identified in the risk analysis and there must be a coordinator during the emergency. The training program must be periodic, must specify the issues which will be held, and the dates on which training was performed and it plans to be performed again, and there must be evidence of this. In case of having routine diving activities, all personnel who are directly related to diving activities should have training to respond to emergencies related to this activity, particularly in first aid and CPR.

SG-9 Spokespersons for emergencies.

The institution must have assigned persons authorized to give official statements to the media, emergency services and others, in emergency situations.

SG-10, SG-11 y SG-12 Record of emergencies and corrective actions.

Emergencies, as well as identified corrective actions, must be recorded and documented.

SG-13 and SG-14 Emergency Drills.

Emergency <u>drills</u> must be carried out periodically, at least four times a year, twice every six months, to evaluate the effectiveness of the <u>procedures</u> that have been established to deal with emergencies, as well as the effectiveness of the response of the personnel. There must be evidence of said drills, their respective analysis and corrective actions, if applicable. The drills must replicate at least one situation of each of the types of emergencies identified in the risk analysis (e.g. an escape of a risk animal, a medical-human emergency, a fire, etc.)

SG-15, SG-16 and SG-17 Communication or notification in emergencies.

The institution must have at least one system to inform workers and visitors when an emergency is occurring, and transmit instructions (loudspeakers, alarms, radios, bell, etc.). The telephone numbers of external emergency services (fire, ambulance, police, etc.) must be clearly visible next to the telephone terminals responsible for requesting external support.

SG-18 and SG-19 Emergency and response team.

The necessary and functional equipment must be available to attend to the emergencies that have been identified, such as equipment for firefighting, capture and control of animals, flashlights, communication, etc. In case of diving, you must have the necessary equipment to resolve emergencies in this field

SG-20, SG-21 and SG-22 Safe places and emergency exits.

The institution must have places to protect visitors and workers, protecting them in risky situations (escape of dangerous animals, attacks, hurricanes, etc.) if necessary. These places must be duly signposted. The buildings must have their emergency exit and evacuation route identified.

SG-23, SG-24, SG-25, SG-26 and SG-27 First aid and infirmary.

There should be trained personnel who can provide first aid at the institution, both to staff and visitors. There must be medical kits equipped and located in strategic places to access them. They must contain a user guide. All institution personnel must know to whom and where to refer an injured person for first aid.

An area in which first aid care can be given, both to staff and visitors, should meets the needs, even if it is not exclusively used for this purpose.

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SG-28 and SG-29 Surveillance.

There must be security personnel available 24 hours a day, every day of the week. These individuals should be able to contact administrative / technical personnel capable of dealing with an emergency during non-business hours.

SG-30 Emergency signage.

The existing emergency signage (for visitor and staff areas) must comply with current regulations in the country.

SG-31 Mechanism to control the exit of visitors.

There must be a mechanism to ensure that no unauthorized person remains on the premises after closing time.

SG-32 Measures against environmental contingencies.

It must be an action plan against natural phenomena (earthquakes, floods, tornadoes, etc.) that put the animal population and / or the institution's workers at risk. Said plan must include measures that guarantee the physical integrity and health of animals and people. You should consider different technical options for population management, budget analysis, population prioritization, job roles, etc.

SG-33 Measures for health contingencies.

It is important to have a response plan for health emergencies, which may affect people and / or animals. Said plan must consider control, isolation and management measures to avoid or reduce the impact of the emergency on the institution (animals, visitors and workers).

6.2. Visitor Security Standards (SV)

Human life is the highest priority in any situation. To guarantee their safety, strategies must be in place to inform and resolve risk situations to which they are subject when visiting zoological facilities.

SV-1 and SV-2 Physical barriers and security.

The barriers in animal habitats involving risk must prevent physical contact between visitors and animals.

SV-3 Equipment for the extraction of people from bodies of water.

In large bodies of water, whose distance from the shore to the centre of the body of water is greater than two meters, and that have a depth greater than 50 cm; or in smaller bodies of water, but with greater depth, there must be equipment available to easily remove people (hooks, life jackets, etc.). It must be accessible and clearly identified.

SV-4, SV-5, SV-6, SV-7, SV-8, SV-9, SV-10 and SV-11 Activities with animal contact.

In areas or activities where the visitor comes into tactile contact with animals, there must be sinks disinfectant products and / or items available nearby and according to the activity. In institutions where water immersion is carried out, activities must be monitored by qualified personnel for this purpose.

All activity in the water is considered animal contact, the aquatic environment does not act as a barrier, therefore, all people who have activities in the water, or non-autonomous diving should be provided an area for their cleaning after the exercise.

In the case of snorkeling activities, it is not necessary, except for local legislation, that the instructor has a diving certification.

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For any activity of the visitor with <u>autonomous diving</u> without certification, whoever conducts the activity must have a minimum certification of Diving Instructor. In the case of certified visitors, the activity can be conducted by a Divernaster or equivalent certification.

6.3. Worker Safety Standards (SW)

In zoos and aquariums there are risks inherent to wildlife management, complex facilities and interaction between different groups of people. It is very important that the personnel have programs, measures and equipment that guarantee their safety in the work they carry out.

SW-1, SW-2, SW-3, SW-4 and SW-5 Protocol of biosafety.

There must be a protocol that informs the personnel who have contact with animals and <u>fomites</u>, what are the basic measures for prevention and hygiene to avoid <u>zoonosis</u> according to the animal population of the institution.

SW-6, SW-7, SW-8, SW-9, SW-10 and SW-11 Immunization and monitoring of health.

It is important that the personnel working in areas with high sanitary risk are immunized, and / or monitored against the corresponding diseases (rabies, tetanus, tuberculosis, parasitosis, etc.).

In the case of workers related to diving, current tests of particular physical aptitudes, such as audiometry and spirometry, must be requested

SW-12, SW-13, SW-14, SW-15, SW-16, SW-17, SW-18 and SW-19 Activities of diving for operation.

When it is required to implement diving or special skills for work under or in the water, it must comply with international safety standards and respect the current national diving law for workers on the subject of diving.

The institution must have a manual of diving procedures, detailing activities, diving times, etc.

There must be a diving log, detailing the activities carried out in each dive.

The equipment used during the dives must be within a preventive maintenance program; in addition the equipment must be recharged in a timely and efficient manner, obeying the quality characteristics that are required for safety. Maintenance must be performed by a certified person or by a qualified external company.

SW-20, SW-21, SW-22, SW-23, SW-24, SW-25, SW-26 and SW-27 Exposure to dangerous drugs.

There must be a protocol for handling dangerous veterinary drugs, and a procedure to follow in the event of accidental human exposure, as well as the drugs and equipment to deal with that emergency. Dangerous drugs are understood to be those compounds that can cause organ toxicity in low doses. Said protocol must be physically located in the medicine cabinet where the dangerous drugs are found.

SW-28, SW-29, SW-30, SW-31, SW-32, SW-33 and SW-34 Serums and antidotes.

In case of having poisonous animals in the population of the institution or being located in a natural distribution area of poisonous animals, the protocol for attention to escapes, bites and stings by poisonous animals must be accessible in the service areas where these animals are kept. There must be access to fabotheraphy and a first-aid kit to attend to accidents with poisonous animals, respecting national or local regulations. Staff must be aware of these protocols.

It is critical to previously establish a collaboration agreement with the hospital center where a poisoning victim would be treated. It is important to first identify a physician who is knowledgeable about treating venomous animal bites and stings, for prompt and timely care. It is important to note that the will of the center and its technicians must exist to establish channels, alliances and joint work, destined to the training of doctors, in the

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issues inherent to the management of the ophidian accident, to establish general protocols and standardize processes and protocols at best regionally and nationally.

It is important that the institution that has poisonous animals as part of its animal population, considers a minimum of 5 doses for each type of drug that is necessary according to the species that are managed. Every year the expiration date of this fabotheraphy should be reviewed and the feasibility of having the same coverage or increasing it. Serums must be stored in a specific place that is known to all staff, but their use and access must be restricted, only to be handled by authorized persons in the event of an accident of these characteristics. In the event that the legislation does not allow the possession of serums, the institution must know the availability and distribution of the same for the species in question, and have the possibility of resolving the lack of serum at any time.

The institution should consider a basic training, patient care in case of an accident for the personnel who directly or indirectly work in the management of poisonous species; and ensure the practice of at least one annual drill to measure the speed and effectiveness of the response.

SW-35, SW-36, SW-37 and SW-38 Key control method.

There should be a method that controls the keys to padlocks and locks in restricted areas. It is important to consider the identification of the keys, the place where they must remain at the end of the day and a method to verify the closure of areas, such as: lock verification routines, electronic systems, surveillance cameras on doors, keys and padlocks with specific systems to release the key at the time of closing, etc.

SW- 39, SW-40, SW-41, SW-42 and SW-43 Firearms.

Access to firearms must be available to respond to the escape of a dangerous animal that puts a person's life at imminent risk, which cannot be chemically contained and must be neutralized. These weapons must have the characteristics of power, range and <u>carrying capacity</u> suitable for the species kept, considering the conditions of the institution. If the weapons are kept in the institution, they must have the corresponding permits and be stored safely. There must be a training and practice program on the proper use of them by members of the emergency care brigade. If there are no weapons in the institution, but if it is determined that due to the characteristics of the animal population it is necessary to have access to them, a manifest must be available with the armed forces close to the zoological institution. The response time of the police / military authorities with which the agreement is made should not be greater than 5 minutes.

SW-44 Protected contact.

In situations of approach and / or contact with high-risk animals, the institution must have measures (e.g. protocols, equipment, facilities, etc.) that reduce the risk of accidents.

SW-45, SW-46, SW-47 and SW-48 Exposure to X-rays.

The use of X-rays as a diagnostic method is very useful in the medical area; however exposure to radiation can cause disease. The use of devices whose technology is based on it requires safety standards that guarantee that the benefits received are greater than the risks to which users are exposed. The objective of radiological protection is to allow the use of radiation in all its known forms, with an acceptable risk both for the individuals who handle it and for the population in general.

The personnel involved in the use of X-rays must have adequate personal protection elements for this type of activity, and their exposure to X-rays must be monitored and controlled.



6.4. Animal Safety Standards (SA)

The safety of the animals that make up the population is the direct responsibility of the personnel who direct and operate the institution. Actions must be focused on protecting them from other animals, physical elements and people, both during transfers and during their stay in the institution.

SA-1, SA-2, SA-3, SA-4 and SA-5 Containment barriers.

The systems chosen to delimit the habitat of each species must be adjusted to the needs of each group, and must not represent a danger to the animals. This standard applies to aquariums with open and semi- open systems. In case of using electric fence in habitats or areas for high risk animals, this cannot be a primary or only containment system, but it can be secondary to other systems.

SA-6 and SA-7 Electric fences.

In case of using them to contain animals, it is important that the cables are not connected to direct current, but through a button specially designed for this purpose. Furthermore, a constant supply of electricity must be guaranteed.

SA-8 Design of enclosures.

Eliminate outstanding elements and obstacles in habitats that represent danger to animals. On the contrary, they must have structures that facilitate the typical behavior of the species they host.

SA-9, SA-10, SA-11 and SA-12 Animal transfer.

The physical integrity and well-being of animals must be guaranteed during transfers. Consideration should be given to the material and design of the container for transport, <u>substrate</u>, ventilation, space and temperature. In the case of transfers of aquatic animals, the quality of the water must be considered, guaranteeing the optimal conditions of the organisms. Depending on the transfer time, access to water and food should be provided. If they are transported by air, the specifications of the International Air Transport Association (<u>IATA</u>) must be met. When it is by land, the regulations in force for the country or region must be complied with.

In the case of aquatic species, they must be transported in tanks or containers that guarantee the integrity and well-being of the organisms.

7. Animal Welfare Standards (AW)

The members of the Latin American Association of Zoological Parks and Aquariums (ALPZA) are obliged to maintain conditions that promote the well-being of all the animals that they keep under their care in a professional and ethical manner.

ALPZA defines animal welfare as the positive physical and mental state in which an animal is, according to the conditions in which it lives, from its birth to its death.

An animal is in a condition of well-being when most of its experiences are positive; when it is in a healthy state, developing in an environment that satisfies its biological requirements, free from conditions that may affect its safety; when it develops natural behaviours desirable for its species; and free from chronic states of pain or stress.

ALPZA requires that animal welfare be measured and analyzed scientifically, and if necessary, apply <u>improvement</u> actions in a timely manner.

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AW-1 Animal welfare policy.

It is essential that every institution has a clear and coherent animal welfare policy, that it adheres to ALPZA's policy, and that it promotes the welfare of all animals that are temporarily present (animals in in-situ conservation programs, research, rescue and rehabilitation) or permanent under human care.

AW-2, AW-3 and AW-4 Training and professional development.

To achieve the animal welfare standards set by ALPZA, it is necessary to have specialized and updated training in terms of techniques, principles and policies framed within the organizational culture. This training can be through participation in courses, online talks, workshops, access to literature, internships, among others; and it must consider the administrative and technical personnel, and especially the direct handlers of fauna (zookeepers or other names by which they are designated).

It must have a tool for the daily record of news that includes animal welfare, staff news, requirements of the enclosure, clinical and psychological evaluation, such as: play, sexual activity and / or exploration.

AW-5, AW-6, AW-7 and AW-8 Evaluation of the animal welfare of the population.

Animal welfare must be systematically recorded by the personnel responsible for the direct management of the animals (caretakers, zookeepers or wildlife guards); in case of important events associated with the welfare of the animals, the latter must be recorded daily.

The record must contain at least data from:

- Identification of the individual / group
- Date
- News:
 - Overall status
 - Feeding
 - Behavior (exploratory, game, sexual activity, among others)
 - Health and physical disorders
 - Maintenance and infrastructure (site requirements)
- Escapes
- Staff news
- Other relevant data

The animal welfare data collected in the format will be evaluated and analyzed annually. There must be a procedure to address the findings, implementing actions to improve animal welfare.

This analysis must be carried out in at least 10% of the animal population of the institution. It should include an exhibition area, a bird, a mammal, a reptile, an amphibian, a fish and a nocturnal animal for the case, in which it applies, and an infant animal, a gerontic animal and a handling area.

If you have the following species in your animal population: large carnivores, bears, elephants, great apes, cetaceans, pinnipeds, giraffes, hippos and rhinos, these should be included in the animal welfare assessment.

AW-9, AW-10, AW-11 and AW-12 Behavior.

The member institutions of ALPZA must promote positive experiences for the animals in their care, favoring opportunities for choosing positive activities. If this is not happening, the institutions must have a methodology to stimulate those animals that do not make use of their ability to choose.

Animals must have the opportunity to develop breeding behaviours, and must express exploratory behaviours.

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The institution must provide the conditions for the animal to sleep in sufficient quantity and quality according to the needs of the species, with attention to nocturnal species that require special conditions for this purpose.

AW-13, AW-14, AW-15, AW-16 and AW-17 Environmental enrichment.

There must be evidence of the environmental stimulation programs of the species, which consider: changes in the environment, manipulation of objects, stimulation of the senses, foraging, variation in the presentation of food, sources of heat and light, shelters, etc. taking special care that the corresponding activities do not contain situations or elements that could endanger the welfare of the animals.

A record must be kept that documents the programs and the analysis of the results in animal welfare, promoting that <u>environmental enrichment</u> offers positive experiences for the animal.

AW-18, AW-19 and AW-20 Animal training.

The method used for animal training for handling and presentation purposes must adhere to the ALPZA Code of Ethics. It is necessary to have a written policy that determines the conditions under which this activity must be carried out. Additionally, a record of planning, execution and results must be kept.

AW-21, AW-22, AW-23, AW-24, AW-25, AW-26 and AW-27 Presentations inside and outside the institution, feeding activities, and any other interaction between animals and visitors.

If the zoo or aquarium has these activities or if there is any type of public contact or interaction with animals, they must be governed by a policy and protocols that ensure the well-being of the participating animals (exposure times, stress, transfer conditions, handling, among others and the safety of people: staff and visitors).

Interactions with animals must have a clear conservation education objective and be included in the educational program of the institution; they should promote conservation actions in society through encouraging and mobilizing messages that generate admiration and respect for nature. Interactions with animals must be directed by personnel with skills to generate connection and empathy between the public, animals and nature, with the aim of transmitting educational, conservation, animal welfare messages, among others, in an effective, stimulating and positive, complying with the ALPZA Guidelines for public-animal interaction activities.

Special attention should be given in the preventive medicine program to avoid the transmission of diseases between animals and people. The policies and protocols must adhere to the ALPZA Code of Ethics, in addition to being available and known to the personnel who carry out these activities. If the activities include animal feeding by visitors, the participating species must be clearly specified and <u>sanitary measures</u> and a good nutritional balance of the diet formulated according to the requirements of each participating animal must be considered.

AW-28 y AW-29 Individual medical records.

The basis of a healthy animal population is a preventive medicine program, which must consider the medical history of the species and the animal population.

Digital records (<u>computerized records management system</u>) must be current, historical, and have duplicates. Due to the practical and legal relevance of these documents, their duplication is essential, as well as their safekeeping in different places in order to guarantee their existence.

AW-30, AW-31, AW-32, AW-33, AW-34 and AW-35 Preventive and curative programs of veterinary medicine.

There should be a program that includes a written calendar of preventive medicine activities that includes deworming, immunization, and monitoring (periodic management, with special emphasis on handling animals for contact activities).

There must be written protocols that ensure timely, standardized and effective veterinary care. These should contemplate: neonatal, gerontic, and disabled animal's management, handling of samples and tissues;

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management of pre and post-operative patients, and others that serve the institution to ensure that veterinary care is of the highest level for the entire animal population of the institution.

There must be a permanent and effective <u>pest control</u> program that uses efficient and effective methods for its control, minimizing the suffering of the controlled animals, and considering the effect of the products on environmental health.

AW-36, AW-37, AW-38 and AW-39 Facilities for veterinary medical care.

There must be adequate space to perform veterinary procedures. This must have the necessary equipment for the type of species that the institution houses. If you do not have the facilities and / or equipment to perform more complex procedures, it is necessary to have an agreement with a local veterinary hospital or a university.

AW-40, AW-41 and B-42 Pharmacy/drug depot.

The pharmacy or drug depot must be able to limit access to unauthorized persons. In case of keeping <u>controlled drugs</u> / <u>opioids</u>, they must be stored in a strictly restricted way so that there is access only by authorized persons. The regulations applicable to controlled drugs / opioids must be followed. There must be an inventory of drugs, with a control system that ensures that the necessary supplies are available at all times and that they are replaced before their expiration.

AW-43, AW-44, AW-45 and AW-46 Quarantine.

There must be an area isolated from the hospital and the rest of the animal population. It must be for the exclusive use of reception and temporary maintenance of animals, and not to house animals for long periods or while they are being medically treated.

For aquatic species, a quarantine space is understood to be a container that allows housing the largest animal of the animal population, with correct life support, ensuring well-being during the quarantine process or temporary enclosure.

The institution must have quarantine protocols defined by groups of animals, specifying observation times, tests for diseases of interest considering each species (e.g. <u>Batrachochytrium dendrobatidis</u> for amphibians; *Chlamydophila psittaci* for parrots and columbiforms, etc.)

In these facilities you must:

- Carry out diagnostic tests and thus prevent diseases from entering the animal population of the institution.
- Maintain strict sanitary measures and control of accesses and fomites.
- Meet the basic biological needs of the housed animal population, as well as the safety needs for animals and staff.

AW-47, AW-48 and AW-49 Immobilization.

Taking into account that the immobilization of animals can be chemical or physical, every institution must have available the protocols of chemical immobilization and the drugs necessary for it, considering the groups of animals that make up the population. On the other hand, it must have physical containment equipment (compression or containment spaces, nets, presses, etc.) according to the composition of the animal population, and this equipment must always be in good condition. Personnel must be trained in the use and handling of immobilization equipment.

AW-50 Euthanasia.

The institution must have a policy that defines the conditions and methods for <u>euthanasia</u>. This policy must be consistent with the ALPZA Code of Ethics, and comply with current regulations for the country.

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AW-51, AW-52, AW-53, AW-54 and AW-55 Necropsies.

In relation to autopsies, there must be an assigned place to perform them. This space must be separated from the hospital and areas with animals and / or people.

Additionally, it must have running water and washable surfaces. In the event that autopsies cannot be performed at the institution, support facilities must be available (local universities, veterinary hospitals, and similars).

To individuals of the permanent animal population who die:

- A necropsy should be performed.
- The results found must be documented.
- The cause of death must be identified.
- If there is a tissue bank, samples should be stored for retrospective studies.

AW-56, AW-57, AW-58, AW-59, AW-60, AW-61, AW-62, AW-63, AW-64, AW-65, AW-66, AW-67 and AW-68 Nutrition and feeding.

The adequate nutrition of the animals is an aspect of utmost importance to maintain the well-being of the organisms housed.

Given the importance of a good practice in the handling of food and nutrition for the welfare of the animals, it is considered the need that every zoological institution should have a qualified person who is in charge of the development and supervision of the nutrition and feeding program; and also with qualified personnel within the area of diet preparation, who must receive permanent training in food hygiene and nutrition.

There must be a ration formulation by species and preferably by physiological condition (growth, pregnancy, lactation, or feeding to young, gerontic, sick animals, etc.). Although it is understood that there are cases in which the rations obey to population management in which it is not possible to guarantee individual diets, in these cases mitigation measures must be implemented that promote equity in the feeding of the animals of the group, and / or implement exclusion at the time of feeding in those situations that require it.

In the case of aquariums with multi-specific ponds, or other mixed enclosures such as savannas or aviaries, special care must be taken in evaluating the diets, taking into account the heterogeneity and restrictions for each of the species housed.

There must be an instruction manual for the preparation of diets and be available at all times for the people who prepare them.

The presentation of the diets should also consider the natural eating habits of the species, e.g. size in the portion, location within the habitat, the number of feeding places or feeders, material from feeding places or feeders, among others.

There must be a historical file where the formulations of the diets that have been offered are stored. The inputs for the preparation of the diets must be in good condition and come from sustainable sources. There must be a food handling protocol, which includes measures to guarantee the good condition of food from transport to reception, through storage and processing to distribution or delivery. Additionally, it is important to have a method for controlling the inputs and outputs of food raw materials, which considers the expiration date.

It is critically important to periodically evaluate the consumption of the foods offered based on a system of records of consumption, body condition and / or weight, and the analysis of feces as appropriate, to take measures that guarantee well-being, and avoid deficiencies and waste. These records must be digital and supported. Institutions are encouraged to know the chemical composition of the foods used, either through laboratory analysis or through tables of the chemical composition of foods, preferably developed by qualified institutions in each region or country.

It is recognized as important to have a program that guarantees the supply of fresh branches from trees or shrubs, based on a protocol for the selection of plants that guarantees the non-exposure of animals to toxic or harmful plants. Ideally, it is recommended to have a list of plants suitable and not suitable for animal

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consumption and their form of acquisition, a pruning schedule in case they are obtained from the vicinity of the institution, or through the establishment of forage banks and / or proteins.

It is recommended to avoid the use of fresh food that has been fumigated with non-organic pesticides, potentially harmful to animals.

There must be a space destined exclusively for the reception, storage and preparation of diets, preferably centralized, or, failing that, distributed in several areas. This must be adequate and equipped to meet the needs of preparing all the rations and guarantee their quality. Surfaces must be washable. Areas must be neat and clean. They must be monitored regularly.

There must be evidence of these supervisions and, if it has been the case, of the corrective actions that have been taken.

There must be spaces that provide adequate storage conditions for the requirements of each type of food and thus avoid its decomposition or contamination.

An effective and efficient pest control program must be in place in the spaces for storage and preparation of diets, which does not put the animal population of the institution at risk.

AW-69, AW-70, AW-71, AW-72, AW-73 and AW-74 Habitats (also consider aquariums).

Animals should be housed in spaces (habitats, dormitories, temporary spaces, hospitalization, quarantine, dormitories, management areas, rooms for breeding or nursery, etc.) that meet the following:

- Loading capacity.
- Coverage of their basic needs:
 - Fresh water, suitable for consumption and with permanent availability.
 - Appropriate social structures for the species.
 - Shelter from inclement weather.
 - A place to retreat from visitors.
 - Thermal gradient that allows animals to choose the most suitable site according to their thermoregulation needs (reptiles and amphibians)
 - Adequate humidity for each species (reptiles and amphibians).
 - Ultraviolet light source and with the possibility of choosing different radiation gradients for reptiles and amphibians.
 - Sunbathing program for reptiles if it does not have light bulbs and / or adequate nutritional management.
- Free of elements that put its integrity at risk.
- The biological and ethological requirements of each species.
- Appropriate substrates (s) according to the behavioural preferences for the species (s) housed (s). In the case of species that require the use of a perch, its disposition will be considered as a substrate.
- Social characteristics of the species, avoiding that the animals are alone for long periods in view of the visitors, unless this is part of their behavior in nature.
- They represent the natural environment of the species.

When there are events that generate sounds and / or vibrations of levels higher than those that animals are used to, measures must be taken to mitigate them for those institutions that have amphibians, reptiles, fish and arthropods.

AW-75 Temporary spaces.

It is common in zoological institutions to isolate animals temporarily for various reasons (examples: aggressions between congeners, treatments, reception without having the appropriate enclosure ready, among others). Many times these animals remain in these conditions for unnecessarily long periods. Therefore it must:

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- Be a policy for these spaces that establishes the maximum periods of staying, forcing the relocation of the animal to its final destination.
- Be a mechanism that guarantees that this policy is complied with.

The spaces for isolation and recovery must cover the basic needs of the species. The animals in these spaces must be kept and cared for by trained personnel, and the housing conditions must comply with the standards established for the rest of the animals in the institution, including appropriate shelters for the species, exercise, social and environmental enrichment, the access to veterinary care, nutrition, adequate temperature for the correct recovery of reptiles and amphibians, among others.

AW-76, AW-77, AW-78, AW-80, AW-81, AW-82, AW-83, AW-84, AW-85, AW-86, AW-87, AW-88, AW-89, AW-90, AW-91 and AW-92 Water quality.

The water in pits, ponds and aquariums must be of the appropriate quality for the species. It is necessary to perform water analysis in laboratories periodically and take the corresponding corrective actions. If the animals housed are species with aquatic habits, there must be a comprehensive water management and monitoring program that includes: water management and control protocols, records, emergency plans, equipment maintenance, among others.

In the case of aquariums with open systems, the discharge and concentrations of nutrients released to the environment must be evaluated. Additionally and due to the application of drugs in the water, it must have a chemical and mechanical filtration system for the water before its final disposal, as well as a detailed program that complies with the current legislation in the country for residual water management, which applies to all parks with a body of water. In the absence of regulations, the institution must establish a protocol that reduces the environmental impact produced (e.g. filtration systems, or effluent treatment).

In the case of aquatic species, and some species of amphibians, the quality of the water is essential. For that it must have a system that ensures the quality of this for the organisms, depending on their needs.

All the equipment and materials that make up a Vital Support System (VSS) must have certain characteristics to guarantee the quality of the habitats that ensure the permanence of the specimens it houses.

Equipment redundancy. Each of the equipment that makes the VSS work is important, but they are not always critical for the operation, therefore, it is important to have a list that includes a categorization of these in terms of how critical they may or may not be in case of fail. In the case of critical equipment, there must be backup, there must be the possibility of replacing, repairing or putting them to work in a period of time that does not compromise the survival of the units. This applies to both freshwater and marine aquariums.

It is necessary that there is special attention with equipment such as:

- Pumps.
- Mechanical and biological filters.
- Heater cooler.
- UV filters.
- Ozone.
- Illumination.
- Foam splitters for marine use and if required fresh water with a high load of organic matter.
- Chlorination and bromination process for marine mammals, in which there must be a protocol and registration.

The VSS operates to guarantee the quality of the water in the habitats according to the characteristics of each of the specimens, therefore, it is important to carry out a continuous monitoring of the way in which the systems are operating and the quality of the water found in tanks.

Minimum parameters to evaluate (organisms with special requirements must include other parameters):

- Fresh water: pH, dissolved oxygen, temperature. NH3, NO3 and NO2. PO4 Hardness.

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- Marine: Salinity, pH, Temperature. NH3, NO3 and NO2, PO4, at alkalinity, in the case of ponds with chlorination systems, Cl must be within the minimum to be measured.

It is extremely important to have protocols that indicate the entry of quality water for replacement, as well as the proper disposal of reject water. It is especially important in waters where chlorine, ozone, conditioners, or any chemical is used during aquarium operation, particularly in quarantines, treatment areas and drug use.

Protocols must be in place that guarantee sanitary and biological barriers to prevent the entry of unwanted agents, and the exit of species considered "exotic" because they are outside their range of distribution and that are potentially harmful to the environment.

Glossary

Acronym

ALPZA: Latin American Association of Zoological Parks and Aquariums.

IATA: International Air Transport Association.

IUCN: International Union for Conservation of Nature.

SDG: Sustainable Development Goals.
NGO: Non-Governmental Organization.
UN: United Nations Organization.
PCR: Polymerase chain reaction.

CPR: Cardio-Pulmonary Resuscitation. **VSS:** Vital Support Systems.

UVA: Ultra-violet Type A. **UVB:** Ultra-violet Type B.

WAZA: World Association of Zoos and Aquariums.

Definitions

Acquisition: Act by which an organism is obtained through a transaction (purchase, exchange, redemption and collection), having to comply with the ALPZA Code of Ethics.

Ad-libitum: This term refers to "at will", applicable to the access of animals to resources such as water, food, etc.

Alliance: It is an agreement, arrangement or pact between two or more people or organizations, made in order to achieve common objectives and interests.

Analysis: It refers to the identification of components of a process in order to review them and access information in a comprehensive manner, recognizing all the factors involved in it: protocols, procedures, data, conceptualization, scope, evaluation, criteria, and records, among others.

Animal population plan: It is the document that contains the justification for the presence of each species and each individual in the institution. Animals can fulfil conservation, research and / or educational functions. The population plan optimizes the breeding, housing and management skills of the species. In addition, it projects the population in the medium and long term (5 to 10 years).

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Animal Welfare: How an animal faces the conditions in which it lives. A good state of well-being (as indicated by scientific evidence) results in an animal that is healthy, comfortable, well-fed, safe, capable of expressing innate behaviours, and does not suffer from unpleasant states, such as pain, fear, and distress.

Autonomous diving: Is any activity that takes place underwater, regardless of the method of assistance or equipment used for breathing that allows permeance under the water for a time greater than that allowed by the physical condition of each person (helmets, hookah, regulators, spare air, etc.).

Barriers: In the context of areas with animals, it refers to those structures or physical elements (mesh, pits, bodies of water, glass, acrylic, metal structures, electric fences, vegetation, etc.) that ensure the permanence of an animal or group of animals in a given area; or they prevent the passage of a person to a certain area, or contact with a specific animal or group of animals.

Batrachochytrium dendrobatidis: It is a pathogenic fungus that produces a disease called chytridiomycosis, in amphibians. The fungus infects the keratinized superficial layer of the skin of adult amphibians, causing it to thicken, which prevents adequate osmotic regulation in diseased animals.

Biosafety: These are the control or isolation measures in a specific area, or one or more individuals to prevent the entry or exit of infectious diseases. Applies to workers, animals and / or visitors. Establishes the safe use of biological and / or genetic resources.

Breeding: Refers to the act of caring for newborn animals until they are in optimal physical and behavioural conditions to face a natural environment or under human care.

Browsing: Strategy of feeding or foraging that some folivorous species possess and develop, and that consists of the action of cutting the tips of the branches of shrubs and trees.

Carbon Footprint: It is an environmental indicator that aims to reflect all the greenhouse gases emitted by direct or indirect effect of an individual, organization, event or product. Such environmental impact is measured by carrying out an inventory of greenhouse gas emissions or a life cycle analysis according to the type of footprint.

Carrying capacity: It is the maximum number of individuals of the same or different species, for which a habitat was designed in a way that respects the biology of the species, guaranteeing its well-being.

Collection: Methodology used for the acquisition of fauna directly from nature, for which it must have the corresponding authorizations, and be framed in all the guidelines established by the ALPZA Code of Ethics.

Computerized records management system: It is the organization in digital version of the records produced by the institution in general, but especially those that are sensitive to its operation (protocols, procedures, analysis tables, animal records, births, medicine, improvement plans, among others). This system allows traceability to records in general, facilitating consultation and data analysis. This can be carried out in specialized software, Excel, Word or in digital files that are available to each institution.

Conservation: Protect and ensure the long-term survival of species populations in their natural habitats and ecosystems.

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Conservation Action: Concrete contribution to an integrated conservation project (<u>in situ</u>/ <u>ex situ</u>) that may be being carried out with partners.

Controlled drugs: Chemical substances synthesized from natural elements or artificially, whose commercialization is controlled by national and international regulations, and which put human life or health at risk. This must be handled and controlled by trained personnel.

Dangerous chemical substance: Those that, due to their physical, chemical and toxicological characteristics, represent physical danger for the facilities, machinery and equipment, and for the health of the people who are exposed to them.

Direct contributions to conservation: Donations of time, expertise, money, materials or others, in order to ensure the survival of populations of species in natural habitats and ecosystems.

Drill: It is a tool through which a real situation is represented or simulated, in order to observe the response for its resolution. It has a fundamental value for the maintenance of training and continuous improvement.

Education for conservation: It is a field of education, which seeks to help people of all ages to understand and appreciate natural resources, with a focus on the conservation of ecosystems and their components, encouraging people to act for their account to protect and conserve them, using them responsibly and making informed decisions about resources.

Efficient: It is the achievement of established goals by making the best use of resources, not only in terms of time and use, but also in results with clear purposes that allow continuous improvement of the institution in all areas.

Emergency: It is that situation derived from an accident or event that occurs in an absolutely unforeseen way, and that puts the stability and / or security of a system at risk.

Environment: It corresponds to the circumstances, conditions and space in which an animal expresses its innate and necessary behaviours.

Environmental enrichment: The design and management of habitats for animals under human care to promote positive welfare states.

Euthanasia: The humane, painless, and anguish-free termination of life, using methods that result in the simultaneous loss of consciousness and central nervous system function.

Evidence: Information that can be legitimized based on facts obtained through observations, measurements, tests and other means.

Ex situ: Equivalent to outside the naturally occurring habitat of a species.

Findings: It is the result of the evidence evaluated during the inspection, against the criteria of the accreditation standards. These can lead to the identification of risks, opportunities for improvement or recording of good practices. Generally, they are registered individually so that management can be carried out and their correction can be achieved in case it is aimed at an opportunity for improvement or risk identification.

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Fomites: Element or object, artificial or natural without life, that being contaminated is capable of transferring a pathogen from one individual to another.

Gerontic: Synonymous with old, it refers to animals of advanced age that need special care from humans.

Handling: It refers to the procedure that is carried out in the care and handling of animals efficiently and in accordance with the precepts of animal welfare.

High-risk animals: Species that, if not handled with specific and documented procedures or <u>protected contact</u>, or if there is an escape, put human life at serious risk.

Improvement actions: These are specific acts or actions that are established to seek effectiveness and efficiency in procedures, programs or work routines. They are based on the results obtained from the analysis of records and apply both in the administrative and technical fields.

Instruction: Process whose purpose is to train, provide knowledge, educate, allowing the acquisition of capacities or abilities for the development of certain actions in different contexts.

In situ: Equivalent to within the naturally occurring habitat of a species.

Minimum requirements for equipment in hospital / veterinary clinic: The hospital or veterinary clinic of the institution must have at least one examination table appropriate for the collection, taking into account the taxonomic order and size of the specimens kept under human care. In the case of having terrestrial animals, inhaled anaesthesia equipment and basic anaesthesia monitoring elements or equipment must be possessed, with a system that guarantees adequate oxygen supply to patients.

Opioids: They are narcotic drugs derived from opium, such as morphine, its semi-synthetic counterparts such as etorphine, and synthetic drugs (morphine substitutes) such as carfentanil, used for the chemical containment of various species (elephants, giraffes, rhinos, hippos, antelopes, etc.), under the Regulation of Narcotic Drugs, and the restriction on their dispensing and use.

Opportunity of choice: Situation in which an individual is presented with alternatives of action to face a certain circumstance or stimulus, and thus he has the possibility of selecting a course of action of his own free will.

Permanent animal population: These are all the species that inhabit the institution, whose presence is defined by a plan that qualifies them for their contributions to conservation, education, research and fulfilment of the institutional mission.

Pest Control: It is the identification, monitoring, regulation and management of some species referred to as plagues, as they are species that affect the health of people, animals, building structures and heritage of zoological institutions, through the preventive use of methods and simple, inexpensive and duly approved products that can cause the least possible damage to people and the environment.

Policy: Overall intentions and orientation of an organization, as formally expressed by top management.

Procedures: It is the schematic description of the steps necessary for the implementation of an action or activity, includes responsible and times.

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Program: Group of projects that jointly seek to achieve a common vision. Its execution is permanent, and is not conditional upon a beginning and an end. For simplicity, this document uses the term project to refer to both projects and programs since these standards can be applied to one or the other interchangeably.

Protected contact: Situation that occurs in physical facilities that prevent people and animals from sharing the same space.

Protocol: It is a document or a regulation that governs the institution and that establishes how to act in certain procedures. In this way, it collects behaviours, actions and techniques that are considered appropriate in certain situations.

Record: Refers to the document or action by which certain information on a specific topic is noted or reported. It is used to collect reliable information. Records should be simple, objective and clear, practical, logical and useful. They must be digital and have backups, physically protected in a different place.

Rehabilitation: These are all those efforts made to heal and recover an animal (focused on its behavior and physical condition) that for some reason was removed from nature (generally due to damage from anthropic activities) and preparing it to fend for itself same in its natural habitat or under controlled conditions.

Reintroduction: It is the intentional movement and release of an organism within its natural range, from which it has disappeared. The reintroduction is aimed at re-establishing a viable population of the focal species within its natural range.

Rescue: It is the act of responding and acting to save a disabled animal or an animal that is in an imminent threat of danger, provide its immediate needs when necessary and deliver it to a centre where it receives definitive care so that it can recover and finally be returned to nature.

Restriction: It refers to the containment of the animal by eliminating or reducing its defensive capacity directly (through direct manipulation) or indirectly (through elements or objects that limit direct contact between the handler and the animal).

Sanitary measures: Sanitary measures are understood to be the set of actions applied by the zoological institution to prevent, mitigate, control or eliminate an event that causes risks that affect the health of the human, animal and plant population related to the institution.

Senescence: Stage of life characterized by biological aging, which affects physical processes with a progressive decrease in ability, activity and physical strength.

Specialized medical equipment: Those equipment or devices that are used in the diagnosis or treatment of any pathology or medical situation, which due to their cost or little use are not required for routine medical operation, e.g. tomograph, endoscope, arthroscop, orthopedic equipment, etc.

Strategy: A plan that determines and reveals the organizational purpose in terms of long-term goals, action programs, and resource allocation priorities, in order to achieve sustainable advantage.

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Sufficient quantity: Applied in the field of services to people, it is established based on 80% of the maximum number of people received during a day.

Sustainability: It constitutes a transversal axis that helps to promote the care of the planet through a holistic approach that includes three interrelated aspects: the social, the environmental and the economic.

Substrate: It is the surface on which an animal lives and moves, and which is defined by the biological needs and characteristics of each species.

Traceability: Ability to identify the location and past or current condition of an element, as well as to know its history.

Training: Techniques used by conditioning to obtain specific behaviours from animals; it should favour animal management routines and / or promote natural behaviours of the species as in the case of habitats with animals.

Transient animal population: These are all those species that enter the institution for rescue, rehabilitation, temporary exhibition or that are no longer part of the institution's permanent population plan and that remain for a specified period of time within it.

Translocation: It is the human-mediated movement of living organisms from one area, freeing them in another. Translocation can move living organisms that come from their natural habitat or from captivity.

Veterinarian: Personnel legally registered as a veterinarian by an appropriate legislative body accepted by the country where the institution is located.

Voluntary and autonomous activities: Ability to choose a situation that represents the animal, a physical or behavioural benefit.

Voluntary and autonomous form: Referring to the process being faced without any pressure and thus acting according to a determined institutional or personal criterion.

Wide bodies of water: Those bodies of water whose distance from the shore to the centre of the body of water is greater than two meters.

Zoos and aquariums: They are permanent centres where wildlife is protected, with high standards of care and conditions that ensure well-being. They are professionally-run institutions that open their doors to the public on a regular and predictable basis. Its mission is supported by the general vision of the World Association of Zoos and Aquariums (WAZA).

Zoonosis: It is said of any disease of animals that can be transmitted incidentally to people.