

Amphibian Survival Alliance

2015–2016 Strategic Plan



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Editorial

In early 2014 we launched our first strategic plan. That plan outlined a strategy to develop a coalition of organizations working towards a set of common goals. The goals were focused on bringing increased attention to the plight of amphibians around the world and most importantly to drive increased action on the ground.

In short the plan was a success. During 2014 the Alliance grew to well over 100 partners representing organizations in over 20 countries. We awarded almost half a million dollars in grants to support 19 projects. Projects focused on Conservation, Research and Education and helped support multiple priority species in urgent need of conservation action. During a year when our focus was on organizational development we feel that this was a strong start to implementing action on the ground.

With the Alliance now established we are ready to move forward in a big way. In early 2014 the IUCN SSC Amphibian Specialist Group (ASG) formed a new official working relationship with the Alliance. This relationship was founded on the principle that the ASG would act as the Scientific Advisory Board of the Alliance and in doing so update the Amphibian Conservation Action Plan (ACAP). After a yearlong consultation process with members of the scientific and conservation community, the ASG thematic working groups developed a broad list of priority actions that are to be published on Amphibians.org. Working with the ASG we have translated these into actions that as an Alliance we should be able to make significant progress on within the next 12 months. At the end of this period, and half way through this strategic plan, we will be going back to the ASG to provide an update on progress and reassess the priority actions for the coming year. This process will lead to an annual list of amphibian conservation, research and education priorities for the Alliance and help to ensure we progress towards larger goals.

As the Alliance continues to grow and leverage further resources we continue to prioritize which actions should be implemented most immediately. To help with this process we have identified two phases to this strategic plan. Phase 1 consists of actions we plan to implement immediately with our partners around the world. These actions address habitat loss, emerging infectious disease, and trade and policy. As we make progress on these areas and further resources are made available we will move our focus on to Phase 2 which encompasses a range of thematic challenges from ecotoxicology and climate change to systematics and education.

We are now at a point where we have the beginnings of a global network with the ability to implement broad scale collaborative action for amphibians. Now is the time to come together and ensure this momentum is seized upon and positive action for amphibians is implemented.

James Lewis
Director of Operations
Amphibian Survival Alliance



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Our Mission and Vision



Mission—The Amphibian Survival Alliance protects amphibians and their habitats through dynamic partnerships worldwide.



Vision—To prevent the extinction and improve the conservation status in a sustained way of known threatened amphibian species, particularly of those most in decline.

How we Operate

We aim to achieve our mission by:



Preventing the extinction of any amphibian species.



Coordinating amphibian conservation actions across the world.



Maintaining and, where possible, improving the conservation status of all amphibian species.



Protecting and, where appropriate, improving and enlarging areas of habitat important for amphibians.



Building broad partnerships with all the stakeholders needed for effective conservation.



Providing decision makers with conservation advice based on the best scientific studies available.



Helping, through amphibians, to conserve broader biodiversity and to improve the quality of people's lives.



Educating and inspiring people to the wonders of amphibians and their role in maintaining healthy ecosystems.



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Our Values

The Alliance is driven by four core values that underpin all of our activities:



Collaboration—The Alliance is a collaboration across a range of global and local stakeholders. Ensuring effective and positive collaboration is essential to the success of the Alliance and global conservation efforts.



Science—The Alliance prioritizes actions based on the best available science through its partnership with the Scientific Advisory Board – the IUCN SSC Amphibian Specialist Group – and the large number of partners that are global leaders in amphibian conservation and research.



Accountability—As an Alliance, we have a responsibility to our Partners to ensure that we are moving strategically towards our goal and using investments as productively as possible. Working in collaboration with our Partners, the Alliance regularly identifies short, medium and long-term objectives and provides status reports on how those objectives are being met.



Communication—The ASA appreciates the importance of effective and open communication. The ASA is dedicated to promoting the critical work of alliance partners and opportunities for conservation success.

How we Communicate

The Alliance turns research into action through a diverse array of strategic communications, education and public awareness efforts to ensure amphibian conservation success. This means making biodiversity science relevant to the public and most importantly, enhancing the public's awareness of the amphibian crisis and encouraging them to participate in conservation efforts. To achieve this, we use a diverse range of communication tools including:



FrogLog is an informative non-peer-reviewed resource for the amphibian conservation community that is readily accessible to both professionals in the industry and those who have a strong personal interest in a wide variety of conservation topics. [Read More](#)



Social media platforms present additional channels through which the Alliance can engage with stakeholders while forming online communities focused on amphibian conservation. [Read More](#)



A dynamic website acting as the hub of our communication network and designed to help build an amphibian conservation community, raise funds for global conservation efforts, as well as mobilize and coordinate both people and organizations for successful conservation outcomes. [Read More](#)



Conferences and forums serve as a primary networking opportunity for the Alliance to share, address and discuss not only amphibian conservation challenges, but also the latest research and developments in conservation science and implementation. [Read More](#)



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Phase 1

Collaboration, Habitat, Disease and Trade



Addressing Cross-Thematic Needs

During the process of identifying priority actions it became clear that there were a number of actions that were similar across multiple groups. These actions need to be addressed at a higher community level and involve a greater number of stakeholders than many of the specific actions identified later in this document. Many of these actions are broad scientific questions that will need to be addressed by the academic community while others hinge on the effective implementation of collaborative IT solutions.

Measurable Actions

- Build collaborations with six academic institutions to encourage resource allocation towards amphibian research.
- Develop a seed grant fund and actively promote all seed grants focused on amphibians.
- Develop annual list of research priorities across all thematic areas.
- Identify six people willing to translate guidance documents.
- Identify list of six institutions willing to host interns. Obtain USD 20,000 in annual funding for internship programs.
- Develop reference library to be hosted online and accessible to as wide an audience as possible.
- Support and develop initiatives with existing training providers.
- Identify gaps in training and capacity building coverage for amphibian conservation, research and education.
- Produce a database with known and documented points of origin (collection localities) for all species listed in CITES.
- Collect environmental / habitat data for threatened and priority species.
- Establish central open-access database for amphibian reintroductions.
- Utilise new tools in GIS and spatial and landscape ecology to identify and assess priority types of habitats.
- Design and agree on five protocols, data sharing etc.
- Collate and provide a checklist of funding sources for amphibian conservation.
- Build and maintain a database of existing conservation strategies.



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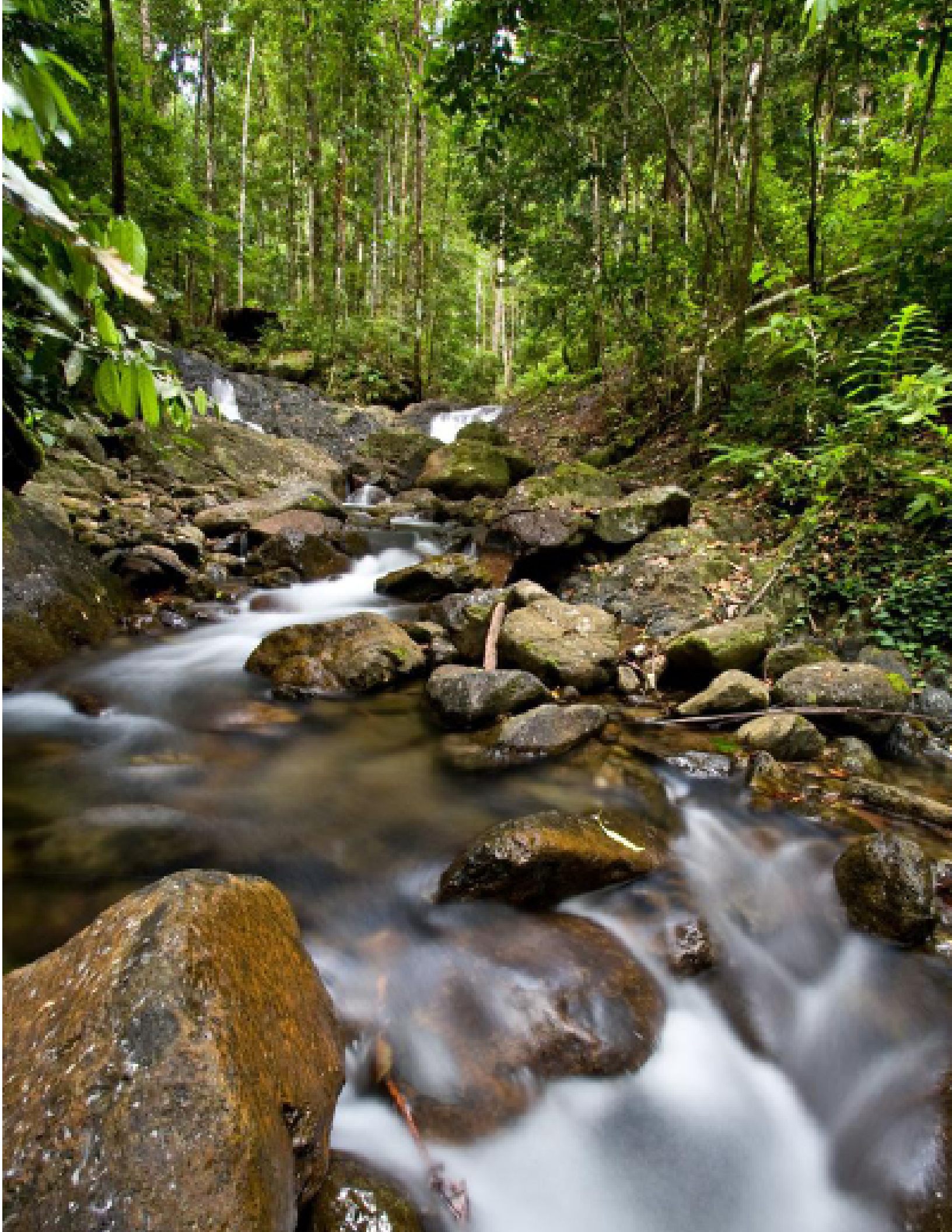
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Increasing Habitat Protection

Habitat loss and degradation are well recognized as the largest threat to amphibian populations around the world. The Alliance will be prioritizing efforts on developing a transparent framework through which conservation practitioners and funders can more effectively partner to save critical sites for amphibians. This framework will be key to scaling up our impact through the Leapfrog Conservation Fund and our other strategies to help protect these vital sites for amphibians and the broader biodiversity value that they support.

Measurable Actions

- Develop a global accepted term for Key Biodiversity Areas for amphibians (KBAA's).
- Recruit two new partners to support habitat conservation initiatives.
- Identify six regional focal points for KBAA's.
- Collect relevant data on 15% of all KBAA's.
- Engage with four national or local government agencies to help protect sites that are important for amphibians.
- Implement the protection of at least eight KBAA's.



Responding to Emerging Infectious Diseases

Emerging infectious diseases are major threats to amphibian biodiversity. *Bd* has caused massive extinctions in various parts of the world, and it has just been found in Madagascar, which has a highly diverse, endemic amphibian fauna. *Bsal* has just been described and could devastate salamander species in Europe and the Americas. New viruses have been described in Europe that are highly virulent and have caused population extinctions. The Alliance has mobilized to meet these threats by supporting novel disease mitigation measures, sponsoring a meeting of conservationists in Madagascar (ACSAM2), and working with government regulators to implement a disease-free clean trade program for salamanders. In addition we will work with our partners to implement the following measurable actions:

Measurable Actions

- Develop fund for grants to high caliber doctoral students filling critical research gaps. Identify potential donors for a fund and develop concept note for doctoral grants fund.
- Invite and publish articles by *Bsal* and BNV researchers on the urgency of a global sampling effort with specific recommendations.
- Support academic partners (e.g. Imperial College London and others) to develop a website like <http://www.bd-maps.net> for *Bsal* and ranavirus and promote it using ASA communications channels including ASA-AmphibiaWeb Science Zone.
- Identify priority areas and species for surveys of infectious disease prevalence.
- Conduct *Bsal* susceptibility experiments on priority species that represent a wide taxonomic range to determine the extent of the threat.
- Identify labs that analyze swabs for *Bd*/*Bsal*.
- Identify high-priority candidate species for probiotic trials from ecosystems not yet represented in probiotics research.
- Facilitate collaborations between researchers, local and international universities, protected area managers and other Alliance members to undertake disease and population monitoring in priority areas (e.g. Madagascar's Chytrid Emergency Cell).
- Support a citizen science project that encourages pet owners to swab their pet amphibians for *Bsal*.
- Convene experts to identify priority areas and species for surveys of amphibian defenses.
- Facilitate collaborations between researchers, protected area managers, zoos and other captive breeding facilities, and other Alliance members to undertake disease and population monitoring in priority areas.

- Convene an expert working group/ workshop to identify barriers to the reintroduction of surplus captive amphibians and make recommendations. Include partners such as AArk and Panama Amphibian Rescue and Conservation Project.
- Co-author a policy piece for a high profile journal with the recommendations from this working group.
- Convene a meeting over Skype with experts to explore the state of the art and encourage additional brainstorming and collaboration. Encourage research with an ASA seed grant category for this topic.
- Consider a web-based interactive solution hosted by ASA–AmphibiaWeb or an appropriate partner with relevant tabs such as *Bd/Bsal* maps, funding opportunities, mitigation research updates and project plans for brainstorming by the larger group.
- Undertake the identification of Key Biodiversity Areas for Amphibians, starting in regions of ongoing decline, and ensure that information on threats from infectious disease is incorporated into the documentation.
- Facilitate input of disease experts into the existing priority-setting processes of AArk, AZA and other institutions involved in amphibian rescues.
- Develop an emergency fund for highly threatened species where no other funding exists.
- Convene meeting to brainstorm outside the box conservation strategies for the large number of species on the brink of extinction.
- Raise public awareness about amphibian diseases by expanding and strengthening social media campaigns to reach a broader audience.
- Raise public awareness about amphibian diseases by engaging education graduate students to develop curriculum modules at various grade levels.
- Convince regulatory authorities of relevant countries (e.g., USFWS) to implement a moratorium on importation of salamanders until a testing program for *Bsal* is in place.
- Work with Associations and major importers and stores in the US to encourage testing, treatment, and disease risk minimization (e.g., Petco, Petsmart, AZA, and AARK).
- Evaluate potential threats of disease spread into novel environments via ecotourism and communicate data to government agencies to educate the public and promote appropriate regulations.



Addressing Trade and Policy Gaps

A lack of information on global amphibian trade is significantly hampering effective response to emerging diseases and contributing to the unsustainable harvesting of some amphibian species. As a result, over the course of the next two years the Alliance will help develop suitable global responses to the lack of information on amphibian trade while simultaneously working with appropriate policy makers to implement sensible approaches to reducing the potential for the spread of wildlife diseases and the unsustainable harvesting of amphibians from the wild.

Measurable Actions

- Develop a fund to support emergency pathogen surveillance in traded amphibians.
- Identify species that warrant targeted disease surveillance to evaluate the presence of specific emerging pathogens in traded amphibians.
- Identify amphibian species previously subject to high trade volumes that were subsequently governed by specific trade quotas and obtain recent field population data.
- Identify amphibian species commonly traded in high volumes as “bred in captivity.”
- Identify species that are more likely to be wild-harvested and monitor trade, identify if these species life histories are conducive to commercial-scale breeding
- Identify and contact taxonomic experts on species listed in CITES and work to produce a list of potential target species. Assess whether there are particular areas of their distribution that may contain forms which could be most vulnerable to trade (via points of origin collections) and may be at risk of extirpation.
- Identify regions where amphibian disease events have caused population decline, but commercial harvest may be occurring.
- Convene a meeting with international amphibian experts to identify species that may warrant proposal for CITES listing at the next CoP.
- Implement immediate policy level actions to reduce the potential risk of *Bsal* entering North America.
- Develop outreach material for amphibian traders and buyers, as well as amphibian collectors.
- Work with responsible and legitimate amphibian breeders to disseminate awareness-raising materials related to biosecurity, ethical sourcing of amphibians and conservation priorities.
- Engage in discussion with World Customs Organization to create codes specific to amphibians.
- Engage in discussions with USFWS regarding the need for policies that reduce the threat of pathogen introduction via the international amphibian trade.
- Identify and enlist five strategic partners that can act as mediators between the Alliance and decision-makers.





Phase 2

A broader strategy for amphibian conservation, research and education



Considering the Impacts of Climate Change

Over the next two years the Alliance will work with Partners around the world to develop a better understanding of the potential impacts that climate change has on amphibians. These efforts will focus on improving our understanding of the species to be most affected by any changes in climatic conditions and how those particular species will likely be impacted. Through this process the Alliance aims to help direct the conservation prioritization and planning processes for range restricted and threatened species.

Measurable Actions

- Identify a set of characteristics which make amphibians vulnerable to climate change.
- Identify a set of high priority species vulnerable to climate change.
- Model climate change impacts on 20% of priority species under existing scenarios and models.



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Highlighting the Importance of Ecotoxicology

Although contaminants are not necessarily playing a singular role in amphibian population declines, it is likely that they are an important cofactor in many declines. A number of studies have shown that exposure to low environmental concentrations of contaminants such as pesticides can make amphibians more susceptible to disease. Given the increasingly important role of disease as a driver of global amphibian population declines to date and the growing threat emerging diseases pose, the Alliance recognizes the potential threat from these environmental contaminants and will work with Partners to help raise awareness of the lack of conservation evidence on pollution-related threat mitigation with the aim of filling this knowledge gap.

Measurable Actions

- Raise awareness of the lack of conservation evidence on pollution-related threat mitigation and encourage publication of these studies through online communication channels and publications.
- Encourage reduction in the use of persistent pesticides (e.g., atrazine) and contaminants (e.g., Hg or DDT).
- Determine adequate models and standards for standard toxicity tests.
- Target pesticides/contaminants that are known to be endocrine disruptors.
- Promote and advocate for the testing of amphibians as part of routine toxicological screening.
- Support international group investigating the 'agrochemical updraft hypothesis' in the tropics as a possible explanation to enigmatic extinctions in high elevations.

Strengthening Captive Breeding Efforts

The captive breeding community must be able to respond to new threats as they emerge, emerging infectious diseases in particular. There is currently limited captive breeding capacity and more species in need of conservation breeding programs than there are programs established. As new threats emerge and more species become threatened, there is a risk that the captive breeding community will be unable to respond. With Alliance Partners we will work to develop a responsive network that is able to deal with any emergency situations and with a focus on getting species back into the wild once threats have been mitigated.

Measurable Actions

- Ensure that conservation needs assessments for priority countries with high amphibian biodiversity are completed.
- Develop and update annually the emergency response plans for various situations.
- Collect environmental/habitat data during emergency collection trips to start informing husbandry and equipment kits for deployment with each rapid response team.
- Identify the areas in which there is the greatest need for amphibian husbandry capacity building.
- Develop and update annually a list of people with conservation husbandry experience.
- Research needs identified in advance for each program species.
- Assess and prioritize species on a national level for their *ex situ* conservation actions.
- Establish an advisory committee that will update the captive breeding community on how to respond to new threats.
- Identify major medical, nutrition, husbandry concerns/gaps for amphibian programs and prioritize research efforts.
- Develop and update annually a list of potential trouble-shooters who could advise husbandry practitioners on how to implement changes in management strategies.
- Ensure all institutions providing internships are employing current best practice protocols and husbandry standards.
- Based on existing and up-to-date research, develop and then review annually a manual for the controlling of diseases in amphibian assurance colonies and reintroduction programs.
- Ensure that specific aspects of biosecurity are outlined in a program implementation tool.
- Ensure that program managers and staff understand the importance of biosecurity and how to implement relevant protocols.
- Ensure that new information/protocols are widely distributed as they become available.

- Develop and update annually a list of facilities and practitioners.
- Publicise *ex situ* programs requiring support quarterly through Alliance and Partner communications channels.
- Generate and promote evidence-based husbandry protocols through the establishment of an online open access journal on amphibian husbandry updated.
- Update and circulate amphibian population management guideline annually.
- Ensure captive breeding program managers understand how to properly manage the amphibian populations they are responsible for and provide support as required.
- Approach veterinarians and wildlife epidemiologists to ensure that new methods/techniques are filtered down to husbandry practitioners.
- Develop a plan of action for diseases where there is no reliable screening and/or treatment in the event of an outbreak.
- Develop and disseminate disease risk assessments for known amphibian diseases which have the potential to undermine captive breeding programs.
- Develop an international center for captive breeding and research of priority species.



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Towards More Effective Reintroductions

Because the identification and neutralization of threats are such fundamental first steps in species recovery, reintroduction can be risky without a full understanding of these issues. A poor understanding of the drivers of declines can hamper our ability to successfully reintroduce amphibians the world over. To maximize the chances of successful reintroductions, the Alliance will work with Partners to enhance our understanding of which methods are effective and which are ineffective when reintroducing amphibians into the wild.



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Measurable Actions

- Carry out systematic evidence review/ meta-analysis of factors affecting reintroduction success and identify research shortfalls and most appropriate methods.
- Refine protocols for amphibian reintroductions.
- Continue to carry out, support and disseminate research aimed at identifying threats, such as novel pathogens and invasive species.
- Continue to work with biostatisticians to ensure that new developments in statistical modelling are included within survey design and analysis protocols.
- Continue to conduct reintroductions with experimental design and through an adaptively managed program that allows us to learn more about how to successfully establish the priority species.
- Assess 'reintroduceability' of species on the basis of data on (1) current population status; (2) potential for threat neutralization; (3) available habitat; (4) national and local stakeholder support; (5) availability of stock for release; (6) viability of reintroduced population; (7) inability of the species to respond to alternative interventions (e.g. habitat restoration); (8) Life history characteristics, particularly generation time; fecundity and mode of reproduction.

Raising the Importance of Taxonomy

Taxonomy is often the basis of priority action in conservation yet the complexities associated with amphibian taxonomy frequently result in unanswered questions and challenges when addressing conservation issues. To resolve this problem the Alliance will be working with Partners to reinforce the importance of taxonomy while building a network of institutions and individuals that are able to help fill data gaps and address concerns.

Measurable Actions

- Create communication tools to demonstrate that taxonomy is often the basis for prioritizing conservation action.
- Identify the large amphibian collections around the world and highlight these as centers of excellence.
- Ensure the centers are up-to-date and partnering with each other and the database information is correct.
- Identify areas that have a lack of taxonomists.
- Identify future taxonomists in Gap Areas and build partnerships with centers of excellence.
- Facilitate identification of amphibian species listed in CITES by law enforcement officers through the development of a pictorial guide.
- Develop materials to help with species identifications (e.g., field guides).



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A Global Approach to Amphibian Genome Resources

Another important focal area for the Alliance is the development of a global strategy for conservation actions based on amphibian genome resources. This is important because these resources impact many aspects of amphibian conservation including: infectious diseases, trade and policy, climate change, ecotoxicology, assessing the success of species conservation strategies, reintroductions, management, habitat loss and restoration, invasive alien species, surveys and monitoring, taxonomy and systematics, education and awareness and even politics. Working with Partners we will create a historically permanent record and resource that is publically accessible and contains bioinformatics and tissue resources for both conservation and research purposes. We will also work to integrate amphibian genome resources into larger initiatives that encompass broader organismal groups such as mammals, reptiles, microorganisms and plants.

Measurable Actions

- Create a prioritized list of target species for genome sequencing.
- Support funding initiatives, formation and interactions of research consortia aimed at amphibian genome sequencing, assembly and annotation as well as developing and using these molecular tools and approaches.
- Identify a sustainable informatics structure for providing public access to genome information.
- Create prioritized list of species and areas for tissue collection and cryopreservation (determine types of tissue collected: somatic, reproductive, blood, etc.)
- Support funding of initiatives, formation and interactions of research consortia.
- Construct a list of research topics which urgently need to be addressed and actively promote participation within educational systems worldwide.
- Development of technical manuals, protocols, hands on training and public awareness campaigns for amphibian tissue acquisition and storage in four conservation specific countries.
- Engage six sequencing and bioinformatics Partners.



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Encouraging the Development of Species Conservation Strategies

The Alliance envisions a world in which the extinction of known threatened species of amphibians has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained. Unfortunately basic information on distributions, ranges, population sizes, conservation status and threats for many species and regions is still lacking, and many priority amphibian species or biodiverse priority regions have no conservation strategies in place. The Alliance will work with Partners to develop new conservation strategies and assess the overall effectiveness of implemented strategies.

Measurable Actions

- Use existing information sources to identify priority species that need a species conservation strategy.
- Develop and apply prioritization criteria based on more than just level of species endangerment.
- Develop a questionnaire designed to assess the successes and failures of Action Plan implementation.
- Accumulate six case studies and ensure lessons as models are proactively disseminated to other potential amphibian conservation parties.
- Ensure climate change is included in conservation planning and that its impact on defining conservation sites is well-recognized and heeded in all planning.
- Provide technical knowledge and assistance to any party keen to help with amphibian conservation planning.
- Develop and provide a model species conservation planning process.
- Encourage uptake of amphibian planning opportunities by diverse parties.
- Promote participatory approaches in the development of species and site action plans, to elicit buy-in from local stakeholders from the start.
- Build capacity of six local conservationists to conduct simple 'stakeholder mapping' to understand their perspectives, interests, potential contribution, etc., and provide guidance on outreach and conflict resolution.
- Identify organizations and individuals to develop species strategies based on priority species.
- Raise awareness of available resources and support networks through quarterly articles in *FrogLog* and on the amphibians.org website.
- Develop user-friendly guidelines on how to develop an amphibian species action plan.
- Demonstrate through model projects that effective amphibian conservation can be done at low-cost.
- Undertake at least five amphibian planning exercises annually from 2015.

A Global Approach to Surveys and Monitoring

With the threat of emerging infectious amphibian diseases caused by pathogens such as *Bd*, *Bsal* and Ranavirus, the lack of screening for these diseases in biodiversity surveys poses a significant threat to amphibians around the world. Ensuring that the integration of disease monitoring is a standard part of all surveys is of critical importance in areas such as Madagascar (*Bd*), the Americas (*Bsal*) and Europe (Ranavirus). Alliance Partners will identify and work with disease experts to prioritize the development of standardized screening methods for these diseases. At the same time, because of the limitations posed by traditional survey and collection approaches when monitoring threatened, rare and/or cryptic species, we are also investigating the advantages of more novel monitoring techniques such as environmental DNA (eDNA) and automated recording devices as well as standardizing survey/monitoring techniques. Our Partners can then use these standardized protocols when harnessing the power of citizen scientists collecting the data necessary to properly inform conservation decisions.

Measurable Actions

- Literature survey and consultation with experts on the use of eDNA to create a working document subject to annual revision.
- Literature review and survey of individuals working in the field of passive acoustic monitoring to create 1 working document subject to continual revision.
- Matching six experts with students or others interested in Protected Areas Management.
- Develop guidelines for choosing state variables in monitoring programs and surveys (e.g., should we measure species richness, occupancy, abundance, occurrence of reproduction (tadpoles), life history traits, etc.).
- Develop guidelines for ancillary data (predators, competitors, pathogens, environmental features, possible contaminants, etc.) to be collected in surveys.
- Develop a simplified protocol for adoption and application by citizen science.
- Identify and contact three citizen science initiatives that would be interested in partnering for amphibian surveys and monitoring.
- Survey six museums and researchers to determine their field collections guidelines and integrate into best-practice document.
- Develop a better understanding of which GIS data are available and relevant for amphibians (depends on spatial scale), inclusive of literature review and experimentation with GIS (more experimental use of GIS, e.g., making and testing predictions, revising when they prove inaccurate, repeat).
- Develop guidelines for how to analyze and interpret spatial data collected in surveys.



- Recruit six volunteers to collate existing keys by regions; develop lists of keys for taxa/areas to identify existing resources; reach out to six taxonomic experts to assess quality and usefulness of keys.
- Knowledge gaps on the impact and significance of amphibians in community and ecosystem dynamics
 - Review of relevant literature for amphibians in terrestrial and aquatic systems.
- Recruit volunteers to review existing literature on amphibians and ecosystem services.
- Support the integration of *Bd/Bsal* and ranavirus surveys into all biodiversity survey work.
- Collaborate with disease experts to incorporate disease and pathogen detection into monitoring programs.
- Develop novel tools for the assessment of individuals and populations.
- Develop resources (funds, citizen science initiatives) that would allow for ground truthing and border expansion of presently understood species ranges. This can be prioritized by the conservation status of species, e.g., Least Concern species are low priority unless they are disease carriers.
- Act as a clearinghouse where students looking for graduate projects at universities are matched to priority actions.
- Develop clear documentation to help explain the need for surveys and monitoring.
- Recruit amphibian educators and communicators to develop outreach materials in several languages and make them widely available.
- Develop a network of six amphibian long term ecological monitoring sites worldwide.

Building a Solid Communication and Education Foundation

The Alliance believes that communication and education are key to both grow and sustain support for amphibian conservation. It is also through these that we identify the threats to amphibians at both local and regional scales, and bring about the learning needed to mitigate these threats. Working with our Partners we are increasing collaboration across both professional and academic disciplines and diverse stakeholder groups in order to share the knowledge and experiences that are needed to inform conservation practice. We are also identifying the resources and training opportunities needed for amphibian conservation leaders. At the same time our Partners are increasing awareness, knowledge and access to resources and media that highlight the ecological and cultural value of amphibians and their habitats. By sharing uplifting stories and successes the Alliance and our Partners are continuing to generate the enthusiasm and inspiration necessary to successfully sustain amphibian conservation efforts.

Measurable Actions

- Share uplifting stories and successes weekly that generate enthusiasm and provide inspiration for successfully sustaining amphibian conservation efforts through increased strategic social media outreach efforts.
- Expand and develop our blog to ensure that 75% of stories and content are easily accessible and relevant to a general audience.
- Add five additional bloggers to the blogging team, while ensuring they all come from a diversified background.
- Further develop *FrogLog* to meet the needs of a wider community and increase readership numbers by 25% with this more general audience.
- Develop and launch a weekly Amphibian Heroes initiative which highlights the work of Alliance partners and includes calls to action for other organizations and/or individuals to get involved.
- Identify and promote twelve Amphibian Champions per year (individual accomplishments for amphibian conservation).
- Develop our existing communication tools (*FrogLog*, blog, newsletter and social media) in one additional language to overcome existing language barriers.
- Publish an annual edition of *FrogLog Jr* designed to engage a younger audience.
- Develop a Science Zone as a one stop shop for all things related to amphibian data.
- Develop a section on amphibians.org where research priorities can be presented to the public and a listserv to facilitate discussion of priorities among group members.
- Maximize the reach and impact of two affiliated citizen science initiatives.
- Identify and promote three new citizen science initiatives.
- Encourage the implementation of one mentorship program.

- Develop and strengthen partnerships with five organizations focusing on youth engagement and citizen science.
- Create twelve Facebook communities for sharing and discussing ideas and research based on predetermined thematic areas.
- Develop a strategic communication plan designed to engage more directly with the scientific community.
- Increase the availability and accessibility of seed grants to help with capacity building initiatives by promoting quarterly through Alliance communication channels.
- Identify and promote existing capacity building opportunities.
- Develop a list of five organizations working towards capacity building for the amphibian community.
- Develop two Alliance communication tools in another language to engage and encourage participation in non English-speaking regions and overcome existing language barriers.
- Increase awareness, knowledge and access to resources and media about the ecological and cultural value of amphibians and their habitats through increased communications and outreach.
- Create and promote the use of three data sharing tools.
- Develop simple information packs for Protected Area managers on the importance of amphibians and provide guidance on integrating amphibian conservation into the management of protected areas (including how to find out which threatened species are in their areas).



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The Amphibian Survival Alliance protects amphibians and their habitats through dynamic partnerships worldwide.

We envision a world in which the extinction of known threatened species of amphibians has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

In 2010 nearly 200 countries that support the Convention on Biological Diversity (CBD) agreed on 20 targets to save biodiversity and enhance its benefits for people, and committed to meet them by 2020. The ASA's vision is fully aligned with the target that refers specifically to threatened species, and the Alliance is therefore well positioned to help the CBD Parties meet their commitment to saving biodiversity.

By focusing on amphibians, and the sites and habitats upon which they depend, the ASA is working to improve the quality of life for amphibians, for other wildlife (biodiversity), and for people around the world.



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