

# IUCN SSC Cactus and Succulent Plant Specialist Group

2018 Report



Barbara Goettsch



Kimberlie McCue

## Co-Chairs

Barbara Goettsch <sup>(1)</sup>  
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## Red List Authority Coordinator

Raúl Puente <sup>(2)</sup>

## Location/Affiliation

<sup>(1)</sup> Global Species Programme, IUCN, Cambridge, UK  
<sup>(2)</sup> Desert Botanical Garden, Phoenix, Arizona, US

## Number of members

21

## Social networks

Facebook:  
IUCN SSC Cactus and Succulent Plants Specialist Group  
Instagram:  
cactusandsucculents\_sg  
Twitter:  
@CsggSsc



## Mission statement

The mission of the CSSG is to contribute to the conservation of cactus and succulent plants through better understanding of their taxonomy, ecology and threats.

## Projected impact for the 2017-2020 quadrennium

By the end of the quadrennium, we envisage a priority conservation plan to conduct activities on the ground to improve the conservation status of highly threatened cactus species. We will have generated the Red List assessments for other complete groups of succulent plants that will enable us to start setting and planning conservation. We will have a more diverse Cactus and Succulent Plant Specialist Group (CSSG) that includes members from a wider geography.

## Targets for the 2017-2020 quadrennium

### Assess

Red List: three hundred succulent plant species assessed.

Research activities: (1) two scientific papers published; (2) Alliance for Zero Extinction sites (AZEs) and Key Biodiversity Areas (KBAs) identified for all cacti.

### Plan

Planning: (1) one national or regional conservation action plan for cacti; (2) participate in one policy related forum.

## Network

Capacity building: four CSSG members trained as Red List Assessors.

Membership: increase in number of CSSG members, with 40 as goal.

Research activities: strategic planning of activities to conduct with host institution Desert Botanical Garden.

Synergy: hire a Programme Officer.

## Communicate

Communication: (1) publish a *CSSG Newsletter*; (2) build a presence on social media platforms.

## Activities and results 2018

Assess

### Red List

**i.** The extinction risk of 185 species of agaves and yuccas was assessed by 31 experts from the United States of America, Mexico, Guatemala, Honduras and Colombia with the help of five IUCN facilitators, during a five-day workshop in the city of Querétaro, Querétaro, Mexico. The genera *Agave* and *Yucca* are distributed from southern US to northern South America and the Caribbean. Since pre-Hispanic times, these plants have been widely utilised and today are of great importance for human livelihoods, such as the production of the alcoholic beverages known as mescales, including the world famous tequila. They are also widely utilised for their fibres, as food and as ornamental plants. This will be the second comprehensive assessment of a succulent plant group conducted by the CSSG, after cacti, and will bring a better understanding of the threats affecting these plants and the baseline data to better plan conservation actions. The workshop was also a great opportunity to expand the CSSG membership. A total of 126 aloes from Madagascar were assessed with the collabora-

*Agave palmeri* (flowers)  
Photo: Wendy Hodgson



*Agave utahensis* ssp *kaibabensis*  
Photo: Wendy Hodgson



tion of expert Solofo Rakotoarisoa. This is part of a wider collaboration involving several plant Specialist Groups, including the Madagascar Plants SG, South African Plants SG, the CSSG, and the IUCN Secretariat to complete the global assessment of aloes. (KSR #1)

#### Research activities

**i.** The members of the CSSG supported the IUCN Secretariat and Birdlife International in the identification of Key Biodiversity Areas (KBA) and Alliance for Zero Extinction (AZE) areas for cactus species. A total of 115 such areas were identified across the Americas and are now published at zeroextinction.org. Each of these locations is the last remaining refuge of one or more Endangered or Critically Endangered cactus species. (KSR #22)

**ii.** The Co-Chair of the CSSG, Bárbara Goettsch, was invited to participate in the workshop 'Raising the profile of plants in IWT policy: an evidence-based agenda-setting workshop', which took place during the event Evidence to Action – Research to Address Illegal Wildlife Trade held prior to the 2018 London Illegal Wildlife Trade. The goal of the workshop was to discuss and debate practical opportunities for raising the profile of wild plant species that are actively traded across international markets. The results of the workshop have been included in a scientific manuscript which is under submission titled "Combating 'plant blindness' in Illegal wildlife trade" led by Jared Margulies. (KSR #32)

**iii.** A scientific publication with significant impact on the conservation of cactus species, led by Co-Chair Barbara Goettsch, was published on the journal *Conservation Biology*. The first global gap analysis for a whole plant group (Cactaceae) showed that more threatened cactus species lack protection by the current network of protected areas than amphibians, birds or mammals. The publication assessed the level of protection of all cactus species based on their range size and level of threat, and showed that 18% of cactus species are not considered to be adequately protected in designated areas of protection and 32% of threatened cacti are unprotected. Protected areas containing a relatively high representation of species were also identified as well as priority areas, that if protected, could harbour as many as a 100 threatened cactus species. This is a significant contribution to the knowledge on the performance of protected areas in protecting biodiversity and a milestone towards the conservation of this highly threatened iconic plant group. (KSR #32)

#### **Plan**

##### Policy

**i.** Co-Chair, Kim McCue participated in the Global Strategy for Plant Conservation (GSPC) Conference, held in August 28-30, 2018, at Cape Town, South Africa. During the meeting, she presented the partnership between IUCN SSC Cactus and Succulent Plants SG and the Desert Botanical Garden (DBG) as host institution. Kim emphasized how collaboration can support achievement of the GSPC proposed targets. As an example, she presented how in February 2018, a collaborative effort allowed the SG and the DBG to contribute to Target 2 by assessing the extinction risk of Agaves and Yuccas for the IUCN Red List of Threatened Species. (KSR #7, 8)

#### **Network**

##### Capacity building

**i.** Five members of the Specialist Group were officially trained as assessors during an Assessors Red List training workshop in Phoenix, Arizona, USA. (KSR #5)

##### Membership

**i.** The CSSG has eight new members, including experts from four countries (Chile, Venezuela, El Salvador and Madagascar) which were not previously represented in the CSSG.

#### **Acknowledgements**

We thank our host institution, Desert Botanical Garden, for their generous support to the CSSG. We are grateful to DBG and IUCN–Toyota Partnership for co-funding the Agave and Yucca Red List workshop. We are thankful to CONABIO for supporting the assessment process with members of their staff and to the Jardín Botánico Regional de Cadereyta for their support with local logistics for the workshop. We thank the Royal Botanical Gardens, Kew and IUCN–Toyota Partnership for their support on the Aloes of Madagascar Red List workshop. We are in debt to DBG for kindly sponsoring the part-time position of our Programme Officer.

#### **Summary of activities 2018**

Species Conservation Cycle ratio: 3/5

Assess	4	
Plan	1	
Network	2	

Main KSRs addressed: 1, 5, 7, 8, 22, 32

KSR: Key Species Result