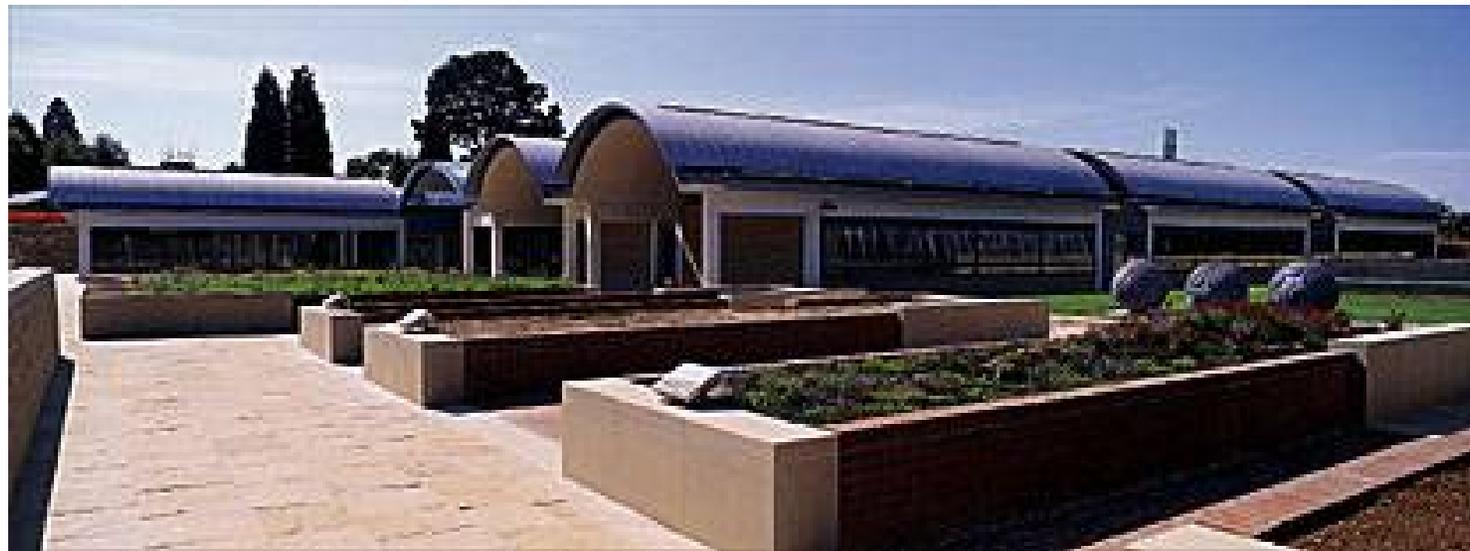


Millennium Seed Bank Project: *Achievements 2000-2009*



Outline

- MSB Project objectives
- Seeds of Success partnerships
- Our achievements
- Conclusions

MILLENNIUM SEED BANK PROJECT



- MSBP Conceived, developed and managed by RBG Kew
- Funded by U.K. Lottery, corporate and private sponsors (£75m)
- Phase 1 (1997-2000): Collect U.K. native flora and build Millennium Seed Bank
- Phase 2 (2001-2010): International Programme



MSB INTERNATIONAL PROGRAMME

PURPOSE 2001-2009

A leading worldwide seed conservation network is in place. Capable of safeguarding targeted wild plant species and contributing to global conservation targets

MSB INTERNATIONAL PROGRAMME

Target 1

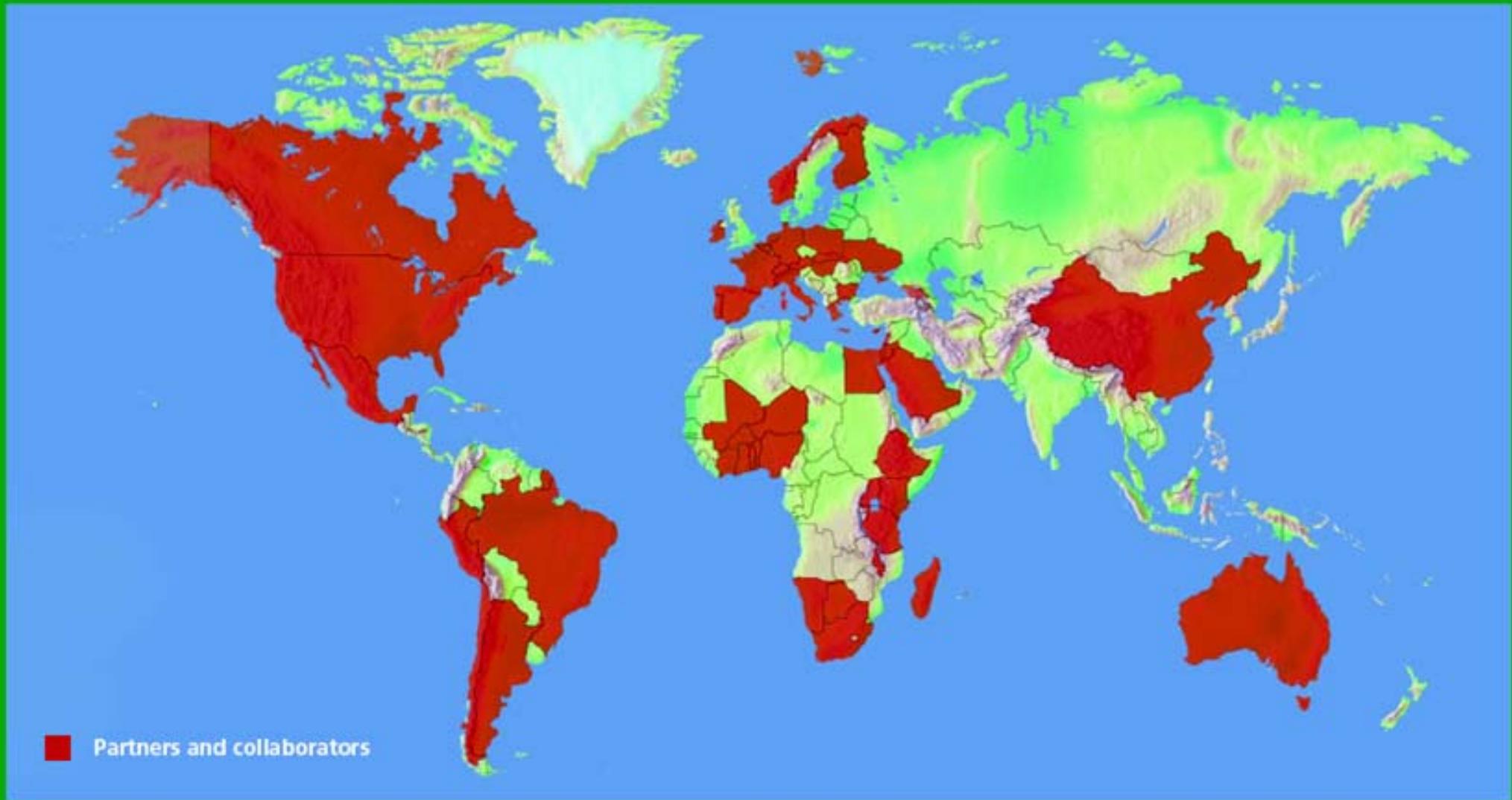
Collect 24,200 species (10% of the world's seed-bearing flora) from the drylands by 2010

Target 2

Develop bilateral research, training and capacity building relationships worldwide in order to support and advance the seed conservation effort



Partners & collaborators



Outline

- MSB Project objectives
- **Seeds of Success partnerships**
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Ex situ action for plants in USA



Center for Plant Conservation:
*safeguards the most
threatened US plant species*

SEEDS



OF SUCCESS

Seeds of Success program:

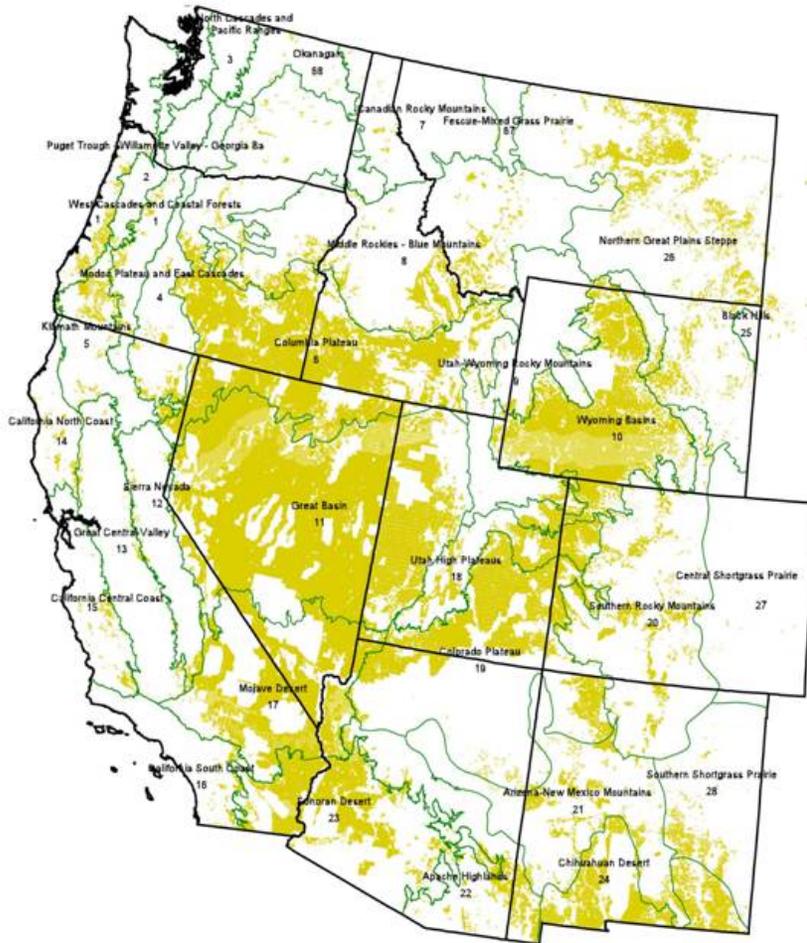
-under Plant Conservation Alliance



*-collects and studies regional flora of future
restoration value*

- works by ecoregions

Development of partnerships

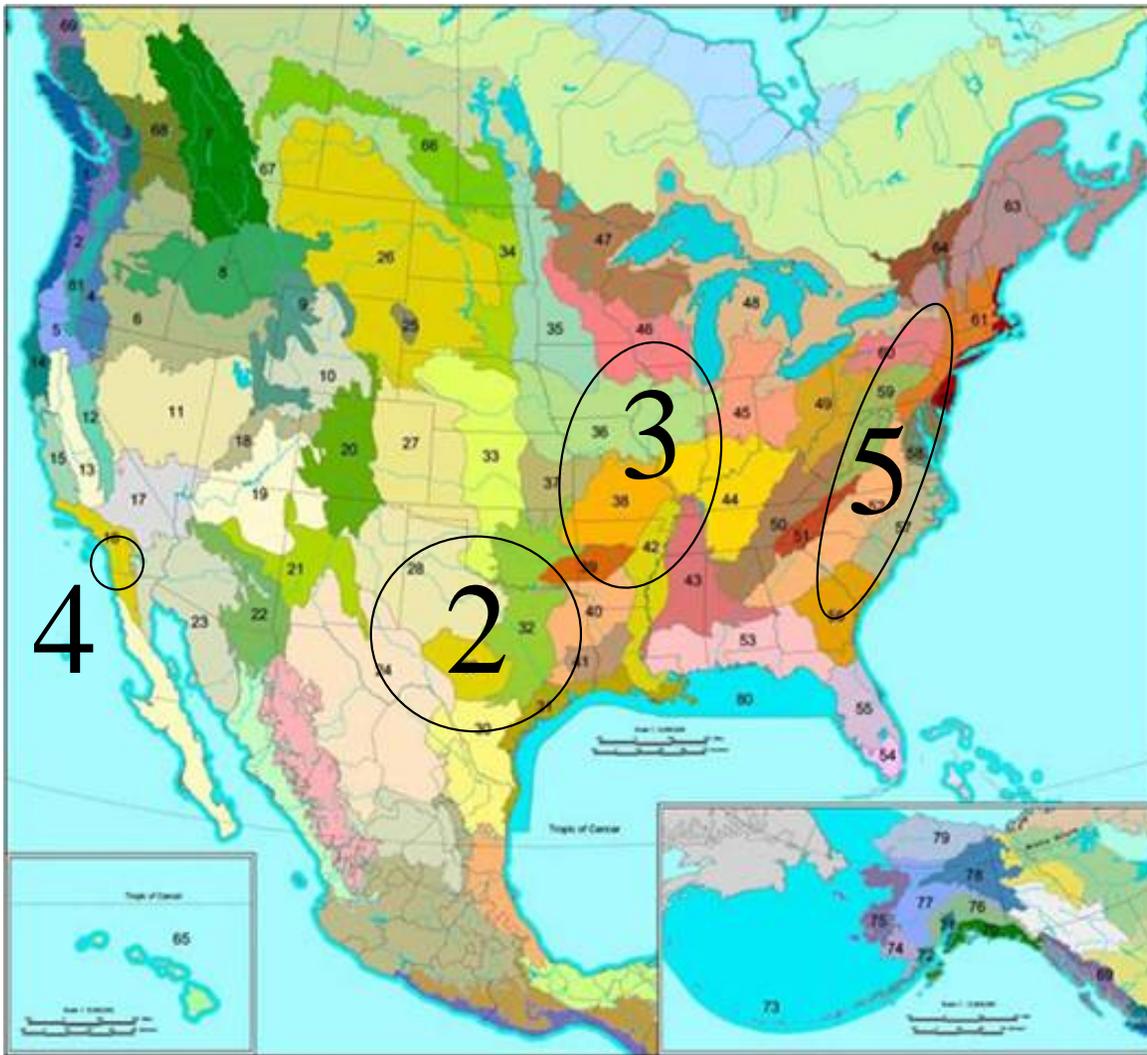


BLM-Kew agreement

Initial target:
2000 species to collect

Kew to clean, process
and repatriate
collections

Development of partnerships



- 2. Texas
- 3. Central tallgrass prairie
- 4. San Diego County
- 5. Piedmont prairie, Atlantic flora.

Outline

- MSB Project objectives
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Achievements: Standards

Robust protocol
developed and updated

Training for high
collecting standards

Feedback to collecting
teams from Kew

Conference calls for
collectors



Achievements: Collections

3400 collections (2900 species)
duplicated at MSB (12% of
MSB target)

Collections are

- **Large** (median 15000 seeds
2005 figures)
- **Well identified** (estimate
4.5% misidentified)
- **Vouchered** (at Kew,
Smithsonian, and regional
herbaria)
- **Highly Viable** (test data)



Castilleja haydonii
(Denver CO)

Achievements: Collections

Dedicated volunteer team, manual cleaning



Achievements: Collections

Repatriation of processed BLM seed



Samples foil-sealed
for shipment



Shipment with DHL
couriers

Achievements: Vouchers



Checking incoming specimens in
the MSB drying room

Nearly all collections
are vouchered

Kew checked names
of 2445 specimens

Kew is repatriating all
of the BLM vouchers

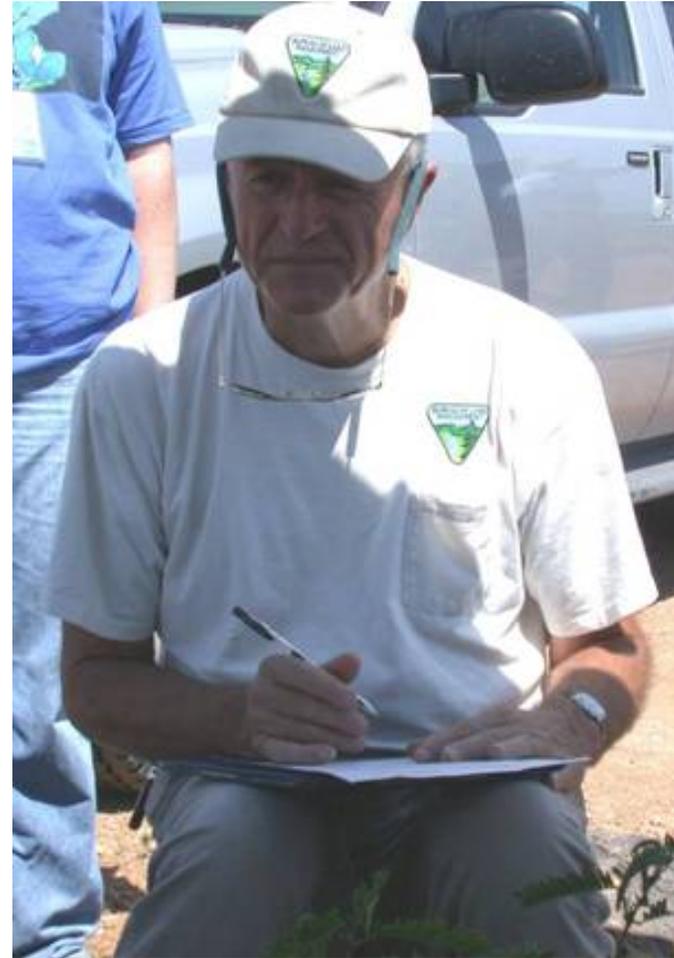
Achievements: Data

Comprehensive field data

First MSB partners to put target species on line

Data capture into BG-BASE and transfer to SoS database

Increasing exchange of field and germination data



Achievements: Networking

Building on cooperation
under PCA and CPC

New relationships formed
with landowners,
botanic gardens,
herbaria, and USDA
germplasm system

Potential for more
cooperation on research



Facilitated additional
collections by UK team

Achievements: Testing

- Kew has completed 10,012 germination tests for SoS
- 63% of SoS collections have an effective test
- 846 tests still underway
- Retests are planned every 10 years
- Data available in two formats



Achievements: Reporting & PR

- Annual reporting for MSB and SOS increasingly streamlined
- Report to Congress?
- Diverse articles produced for in-house and regional press.
- Opportunity to link to celebration of 10% world flora target, October 2009

Conclusions

- Protocol, training, intern program and monitoring has facilitated high quality
- Target species coordination has helped achieve high impact for MSB global targets
- Landowner engagement has opened many doors
- Data standards are effective but need further investment to strengthen national program
- Increasing cooperation on research, dissemination, and use of collections would be valuable



Lupinus texensis