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Kuwait Institute for Scientific Research

KISR Seed Germination Symposium

Desert Agriculture & Ecosystems Program

Environmental & Life Science Research Center

Kuwait Institute for Scientific Research

Outline

- Introduction
- Methods
- Discussion and results
- Current knowledge and future recommendations

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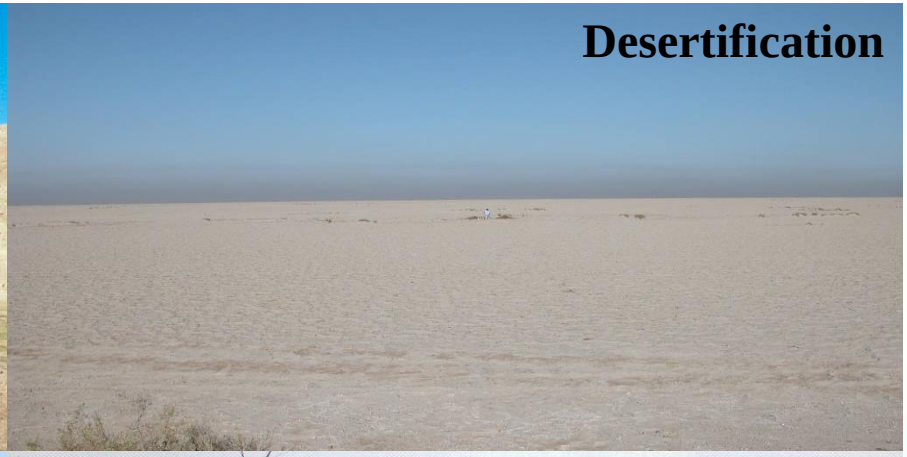
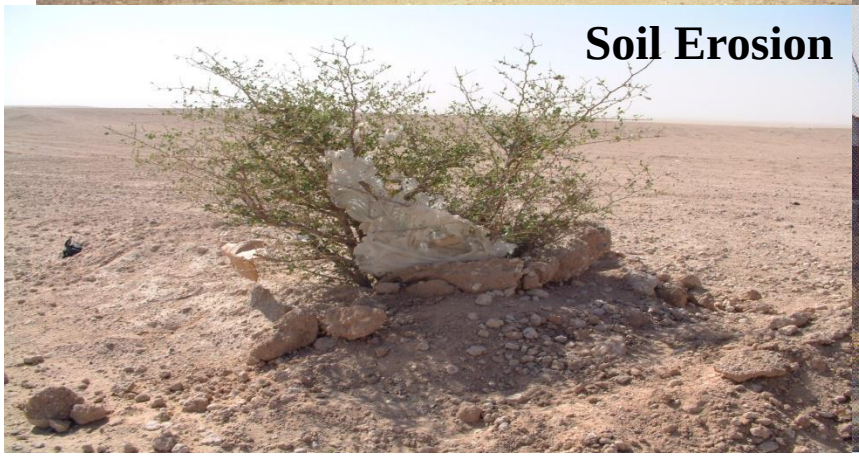
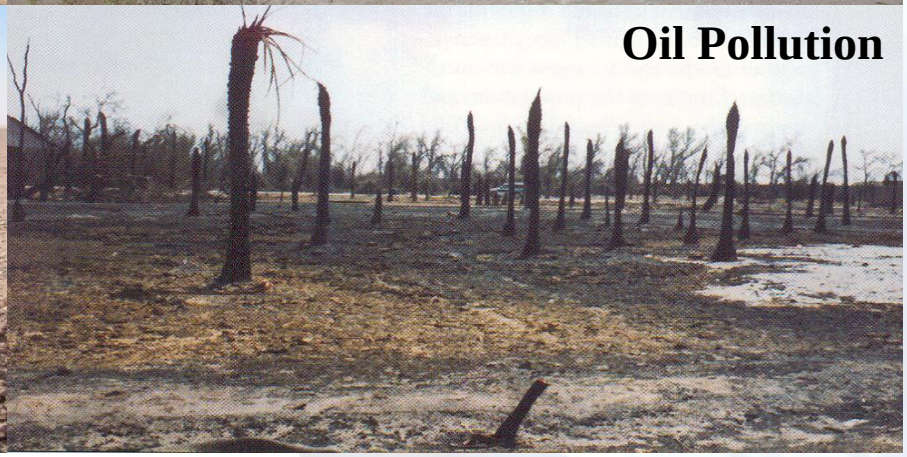
Loss of Native Flora







Introduction

KISR Seed Bank Unit

Established in 2003

Short term storage (up to 5 years)

Long term storage (20+ years, temperatures below 2°C)

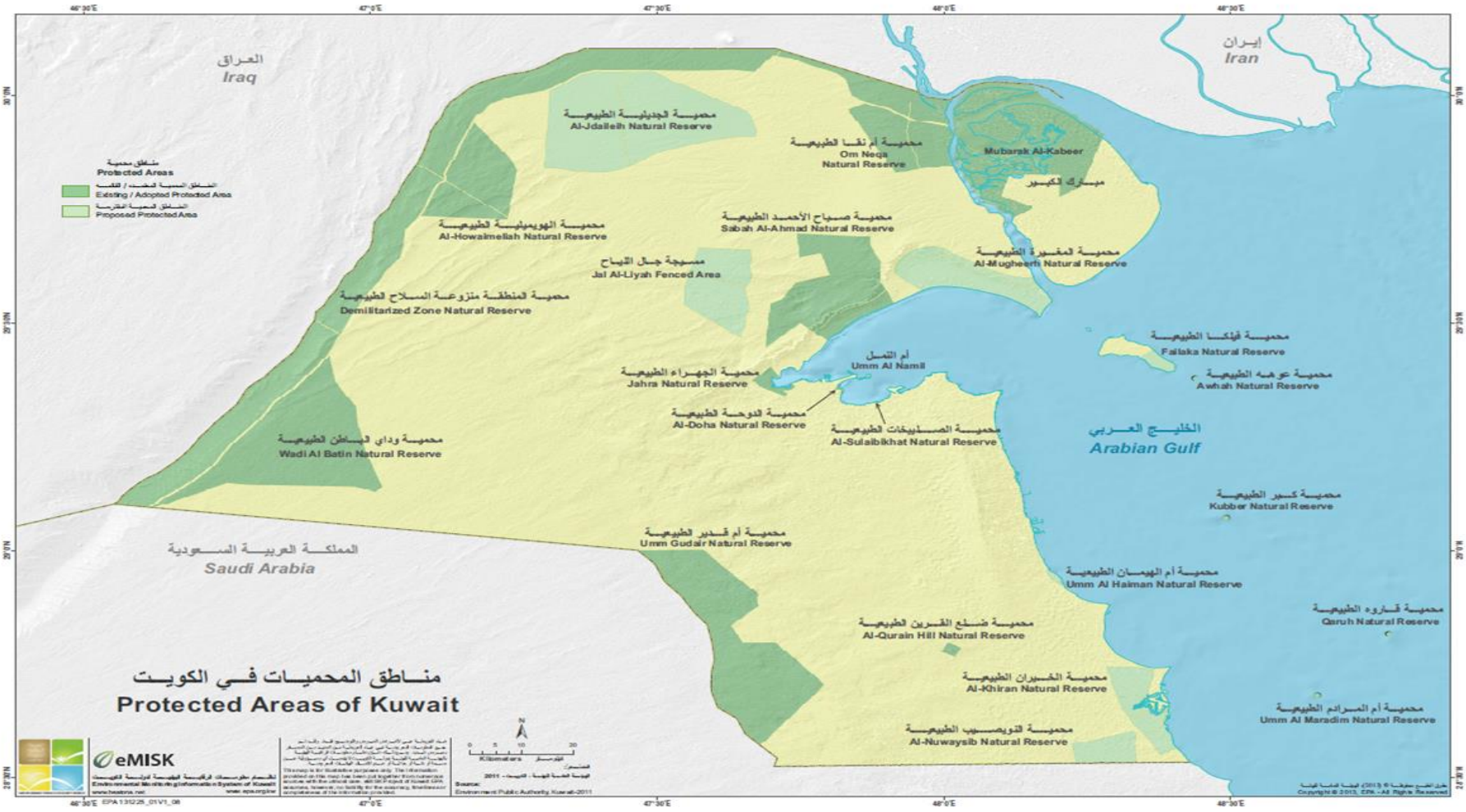
Methods

Seeds were stored for approximately 10 years under room temperature 20-25°C

90mm Whatman filter paper and petri dish (40 Replicates)

12 hour photo period under temperature conditions between 15/20 −C (Growth chamber)

Areas of Seed Collection



Plant species name	Total light	Total dark	Average (Dark) %	Average (Light) %	Total Germinated
Zygophyllm qatarense	58	10	10	58	68
Gypsophila capillaris.	57	13	13	57	70
Vaccaria hispanica	34	9	9	34	43
Salvia spinosa	32	12	12	32	44
Echium rauwolfii	28	7	7	28	35
Gynandriris sisyrinchium	27	43	43	27	70
Plantago boissieri	22	8	8	22	30
Cyperus conglomeratus	13	3	3	13	16
Brassica tenuifolia	7	3	3	7	10
Helianthemum lippii	11	6	6	11	17

Current knowledge :

1. Previous papers:

1. Germination Studies in Rhanterium epapposum Oliv

2. The effects of different treatments on seed germination of the Cassia fistula L. and Cassia nodosa Buch.-Ham. ex Roxb. in Kuwait.

Future recommendations:

Increase seed diversity only 88 different species out of 374

Testing effects of water quantities and quality on seed germination

Time and seed viability

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Thank you!