Electrocution and Collision with Power Line- Case study from Saudi Arabia
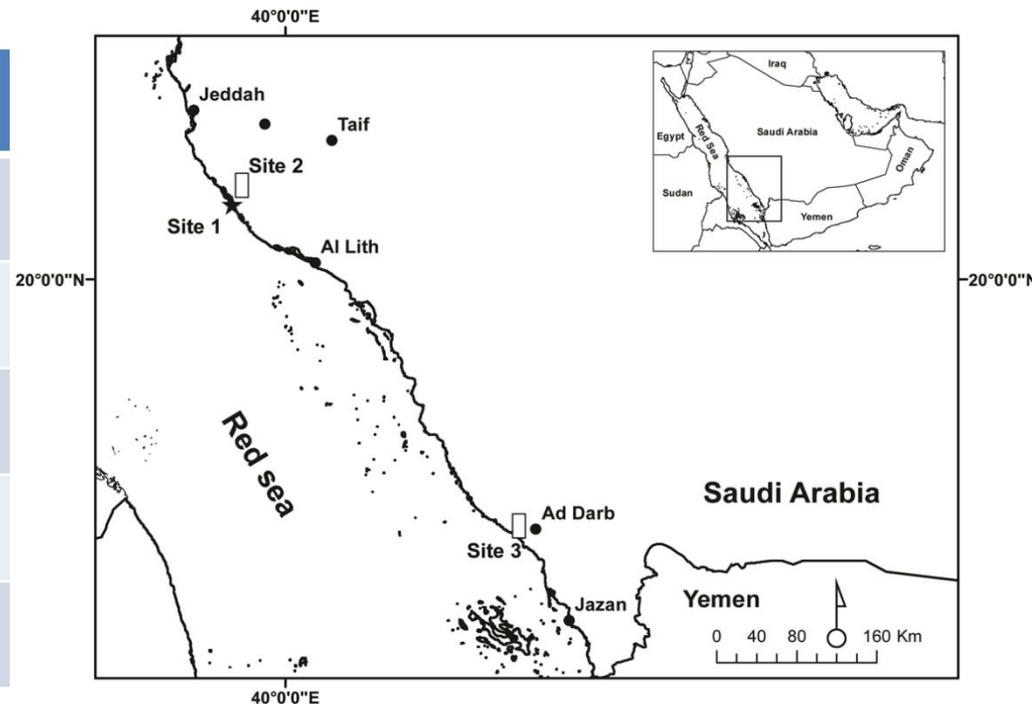
Mohammed Shobrak
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- Methods of Monitoring
- Results
- Important flyway
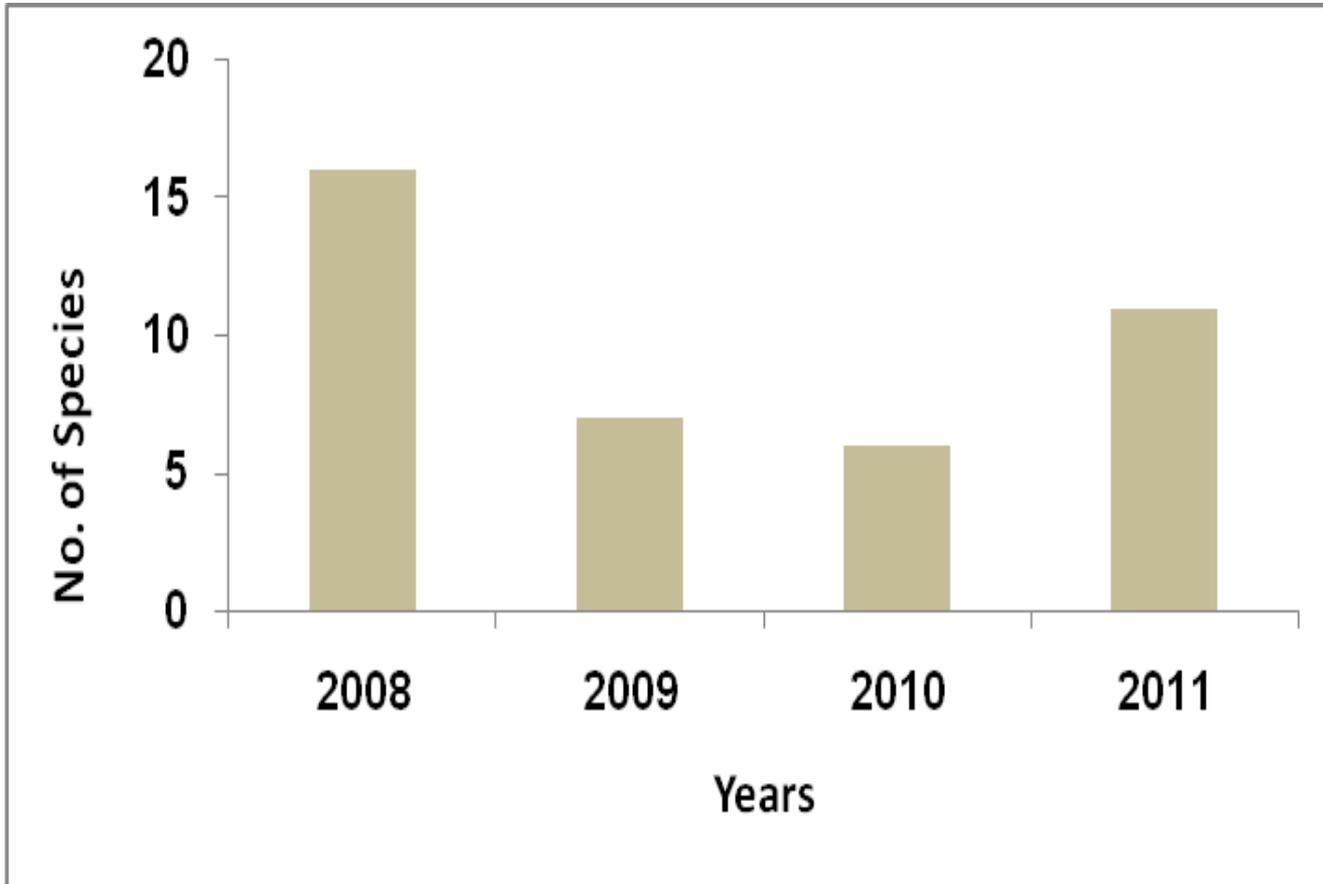- Recommended Conservation Measures

The Survey Sites and Period of the visit

Year	Period of the visited				
	Sep.	Oct.	Nov.	Dec.	Jan.
2008	√	√		√	
2009		√			√
2010		√	√		
2011	√				

Number of the recorded species affected by the power lines at the study area during 2008-2011

Number of Species carcasses recorded during the surveys

Species	IUCN Red List	Years				Total
		2008	2009	2010	2011	
Common Quail *Coturnix coturnix*	LC	88	15	20	47	170
Ferruginous Duck *Aythya nyroca*	NT		1			1
White Stork *Ciconia ciconia*	LC	242	13*			254
Squacco Heron *Ardeola ralloides*	LC			1		1
Purple Hiron *Ardea purpurea*	LC	1		1		2
Goliath Heron *Ardea goliath*	LC	1				1
March Harrier *Circus aeruginosus*	LC			1		1
Common Buzzard *Buteo buteo*	LC	1				1
Corncrake *Crex crex*	NT	13	5	8	18	44
Spotted Crake *Porzana porzana*	LC	1		2		3
Little Crake *Prozana parva*	LC				1	1
Common Moorhen *Gallinula chloropus*	LC	1			1	2
European Turtle Dove *Streptopelia turtur*	LC	2			1	3
NamaquaDove *Oena capensis*	LC	1			1	2
Rufous-tailed Shrike *Lanius isabillinus*	LC		1			1
Red-backed Shrike *Lanius collurio*	LC	1			1	2
Brown-necked Raven *Corvus ruficollis*	LC	1				1
Willow Warbler *Phylloscopus trochilus*	LC	7	3	2	5	19
Whitethroat *Sylvia communis*	LC	2	1		13	16
Barred Warbler *Sylvia nisoria*	LC	1			2	3
Great Reed Warbler *Acrocephalus arundinaceus*	LC				1	1
Unknown warbler	?	2			2	3
Total		365	39	35	92	532

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Percentage of the recorded species affected by the electrocution or collision at the study area.
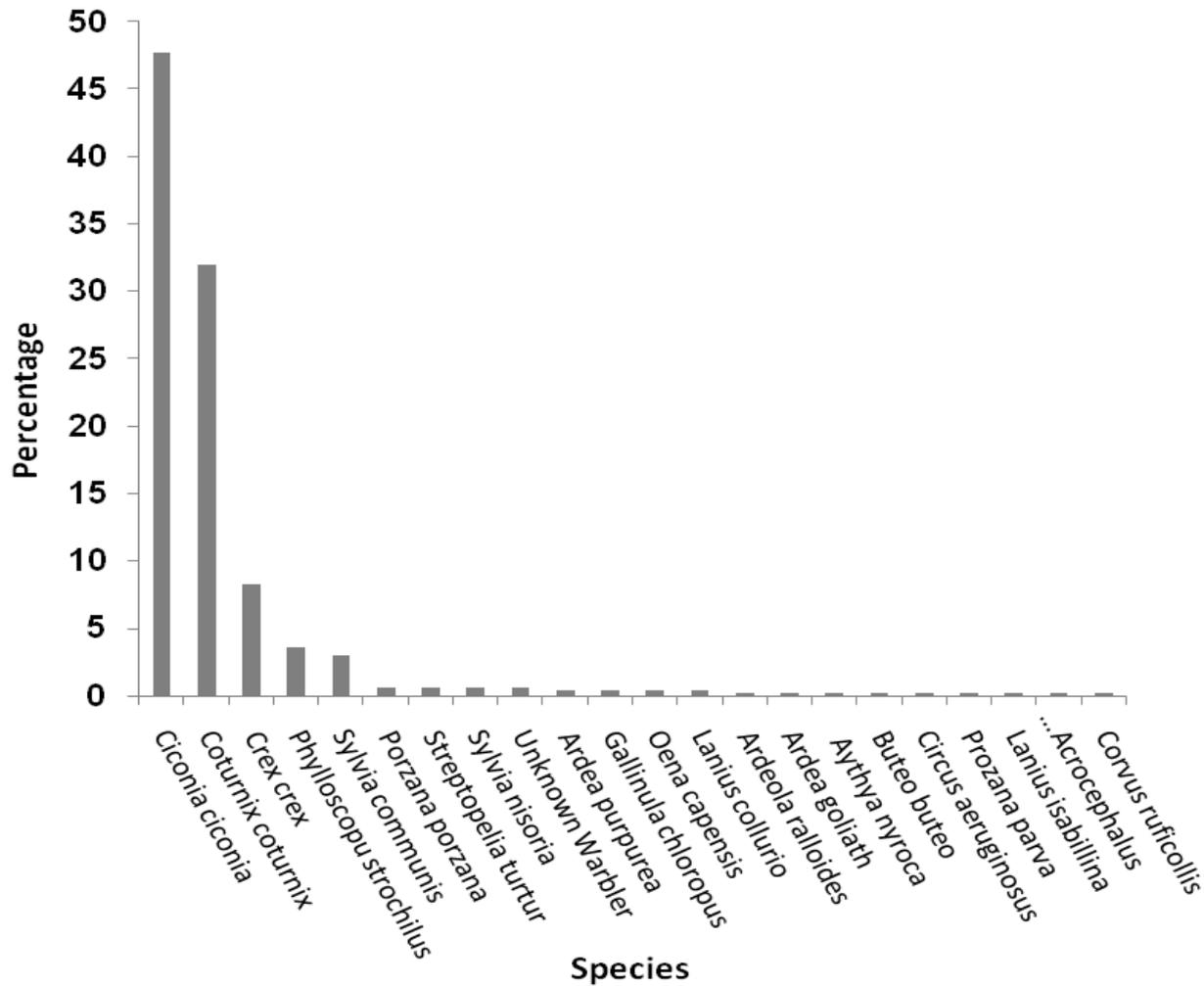
Important of the coastal areas of the Red Sea for migratory birds

- The area from the sea to the mountain can be considered as Narrow-fronted Migration and bottleneck area .

    - *Birds migrating along a narrow front are channelled into corridors, where there may be bottlenecks.*

    - This occurs when migrants from a wide area are concentrated by topographic situations that channel them, such as when they pass along coastlines, peninsulas or through narrow valleys (Newton 2008).
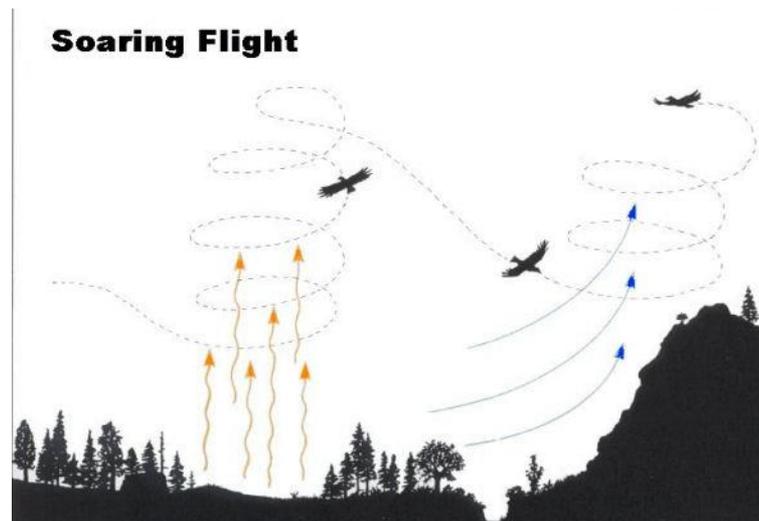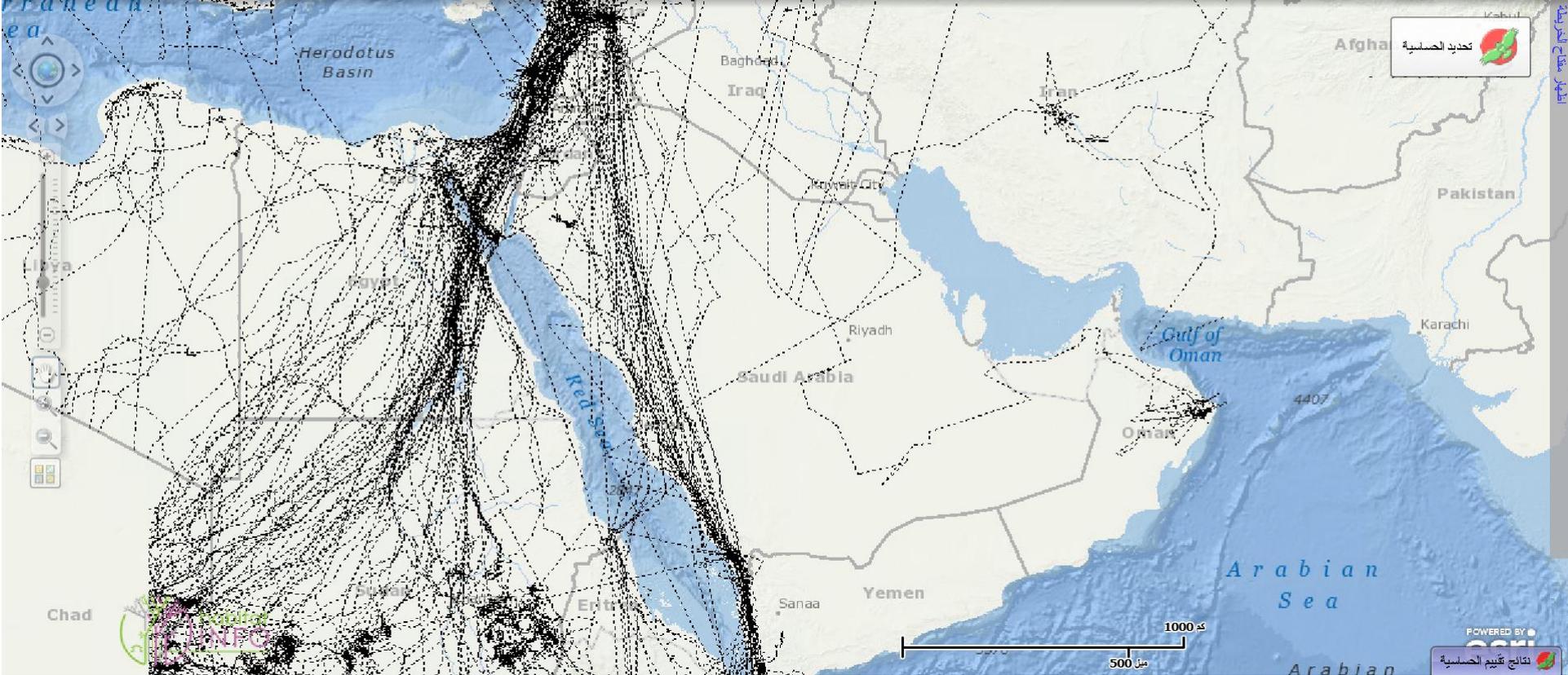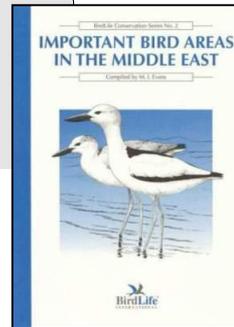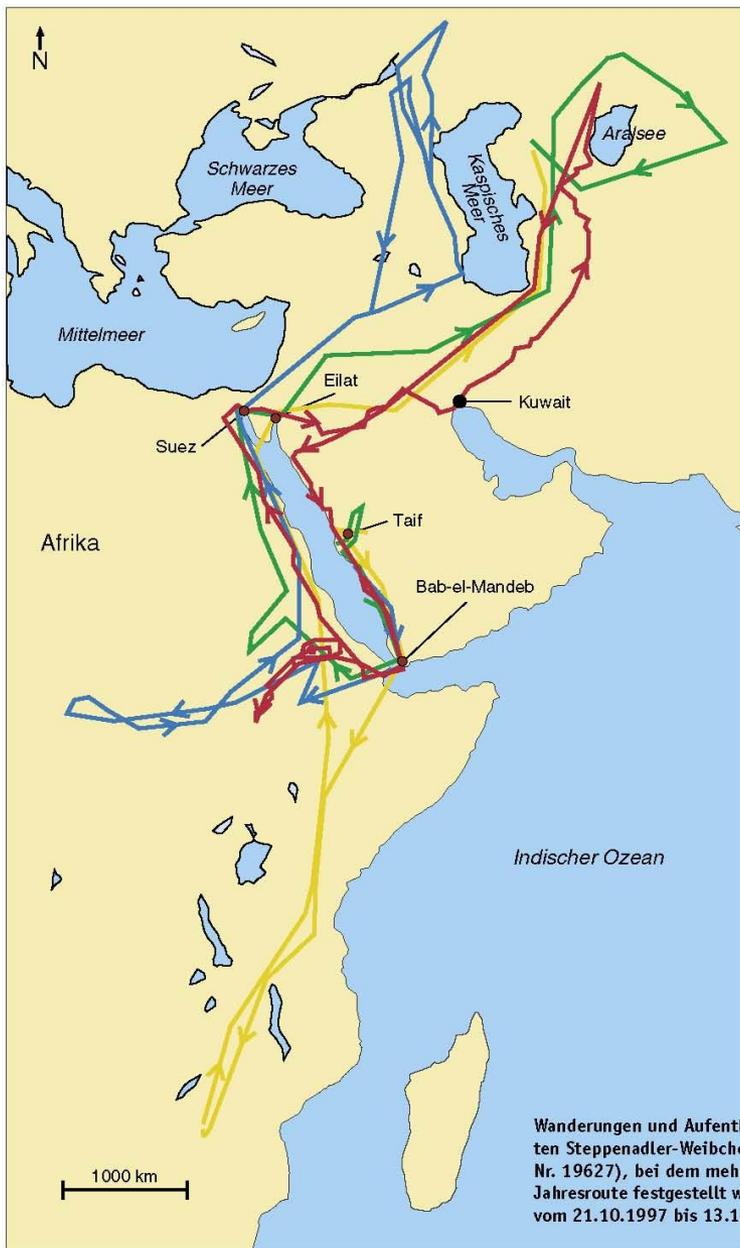

Soaring Flight

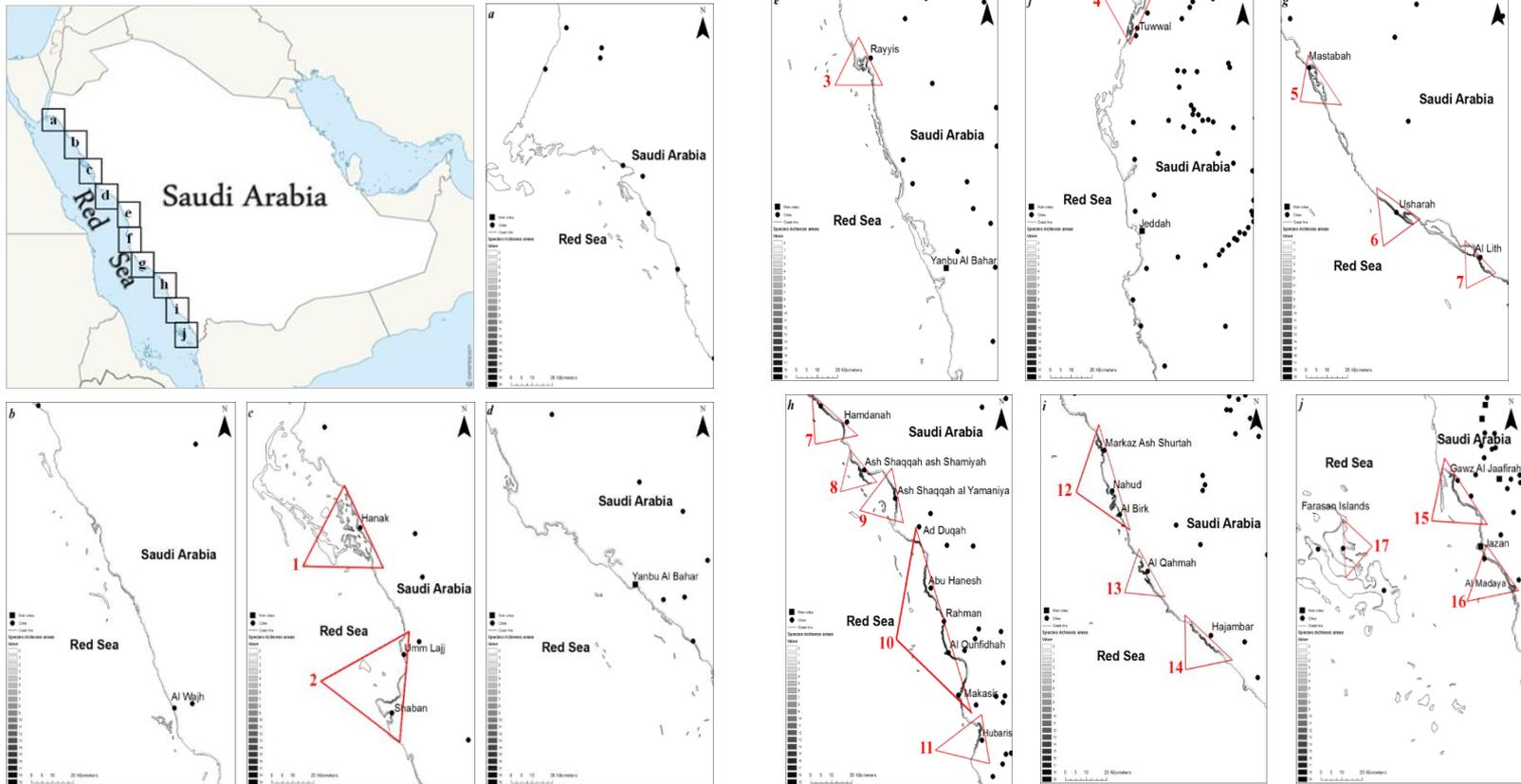# Important of the coastal areas of the Red Sea for migratory birds

- The majority of the of Important Birds Areas (IBA) in the Arabian Peninsula are located in the coastal and mountain range.

Steppe Eagle

Wanderungen und Aufenthalte eines adul-
ten Steppenadler-Weibchens (mit Sender
Nr. 19627), bei dem mehr als eine ganze
Jahresroute festgestellt werden konnte,
vom 21.10.1997 bis 13.12.1998.

Winter visitor & Passage Migrant

A maximum entropy approach were used to build habitat suitability models for 22 coastal wetland bird species (gulls, shorebirds, and terns), with ten variables relating to topography, habitat, latitude, coast complexity, man-made structures, and human settlements were applied to produce individual habitat suitability models for each of the bird species

Important of the coastal areas of the Red Sea for Human and migratory birds

- Climate models show that over the last 30 years, temperatures in the Middle East and North Africa have increased 50 percent faster than the global average.

- Moreover the increase of human population will increase demand for water, which mean more desalination and Power stations are needed.

Conservation Measures

- Use under ground power for the first three Km
- The costal Protection act 2015 & 2016
- Energy Workshop in 2018 introducing
  - guidelines to all stakeholder in the country.
  - success stories of implementing mitigation
  - Develop cooperation mechanism with all agencies involve in the issue

- Develop a booklets for success stories.
- training tools in different languages
- Develop a communications mechanism to introduce the guideline to relevant international body involve in the renewable energy such as donors, contractors of energy facilities

Thank You