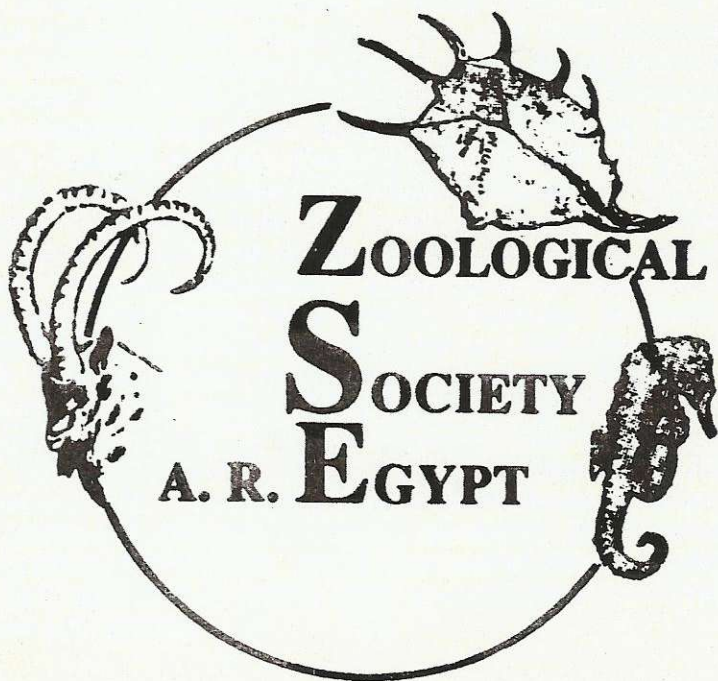


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HERPETOFAUNAL SURVEY OF AL-ARISH AREA
(NORTH SINAI) WITH SPECIAL REFERENCE TO
THEIR HABITAT AND SEASONAL DISTRIBUTION

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A B S T R A C T

A total of 302 specimens of amphibians and reptiles were sampled from Al-Arish town and four stations around it during 12 months period of study from January to December, 1988. 21 Species belonging to 11 families were occurred in the area comprising; one toad: Bufo viridis., 2 marine turtles; Caretta caretta and Chelonia mydas and other 18 terrestrial reptilian species. Acanthodactylus scutellatus was the most dominant cursorial species found in all sand dunes of the mean area in all the year seasons constituting about 30% of the total capture. Mabuya vittata was firstly recorded in Sinai. Six reptilian species were appended to the fauna of Al-Arish area, they are Agama stellio vulgaris; Ptyodactylus hasselquistii guttatus; Lytorhynchus diadema; Psammophis schokari; Caretta caretta and Chelonia mydas. The highest catch number of individuals occurred in station 1 (82 specimens) while the lowest number was in station 5 (15 specimens). Seasonal distribution indicated that the highest catch number occurred during spring (87 specimens) while the lowest crop occurred in winter (47 specimens).

INTRODUCTION

Sinai represents the eastern part of Egypt. It is located between the Suez and Aqaba Gulfs having an area about 61.00 km² lies. Al-Arish is the capital of Northern Sinai governorate. It lies along the Mediterranean Sea between 31° 10' latitude and 33° 45' and 33° 50' longitude. It varied in extent throughout the last few years in its eastern, western and southern frontiers since it was recovered in 1979 after 12 years of the Israelis occupation. The first effective zoological exploration began with the several expeditions of Edward Ruppell in 1817 (Anderson, 1898). Since Ruppell's time, many additions to Sinai herpetofauna have been made (Hart, 1891; Anderson, 1898; Barbour, 1914; Flower, 1933; Haas, 1943 & 1951; Schmidt and Marx, 1956; Hoofien, 1957; Marx, 1968 and Werner, 1973 & 1982). Flower (1933) stated that Sinai is the richest part of Egypt herpetologically. Werner (1982) reported that the herpetofauna of Sinai comprised one species of toad, Bufo viridis Laurenti, 4 marine turtles and 50 species of terrestrial reptiles.

MATERIALS AND METHODS

The herpetofaunal diversity was measured in Al-Arish town and other four stations surrounding it, each station is about 100x 2000 m. Station 1 (Al-Masaid) lies west of the town and is characterized by its date-palm trees (st. 1A) and higher sand dune (st. 1B). Station 2 (Qaryet El-Salam) has been chosen southeast of the town. It is a small village. Station 3 (Dhahiet El-Salam). It lies east of the town. It is characterized by its rocky soil (st. 3A) and its normal sand dunes (st. 3B). Station 4 (Airport area) consists of normal sand dunes.

Field investigations were conducted over a period of 12 months from January to December, 1988. The herpetofauna were sampled twice every month and were mainly collected during daytime. Grabbing (Hand catching) was the main method adopted for capturing animals. Individuals were weighed, measured, counted and preserved in 70% ethyl alcohol. Specimens were partly identified by standard keys (Marx, 1968 and Arnold, 1986) and partly through the courtesy of Dr. E. N. Arnold of the British Museum (Natural History) in London and also Dr. I. Ineich of the

Museum National d'Histoire Naturelle" in Paris.

RESULTS

Class: Amphibia

Order: Anura

Family: Bufonidae

Bufo viridis viridis Laurenti

Bufo viridis Laurenti, 1768,

Synops. Rept., 27 pl. 1, Fig. 1.

Bufo viridis, Mertens, 1926,

Senckenb., 8: p. 258.

Common name: Green Toad.

Twelve specimens were collected from around the irrigation wells in st. 2 and st. 3. The largest individual was a female and measured 9.0 cm in length collected during September. This species was recorded in Al-Arish by Schmidt and Marx (1956).

Range: Europe except the British Isles, Iberian Peninsula and part of France extending to Mongolia Asia and Northern Africa (Lanka and Vit, 1985).

Class: Reptilia

Order: Squamata

Suborder: Sauria

The collected specimens were 14 species belonging to six families, Lacertidae, Agamidae, Scincidae, Varanidae and Chamaeleonidae.

Family: Lacertidae.

Acanthodactylus scutellatus

scutellatus (Audouin) Map (1)

Lacerta scutellata Audouin,

1829, Descrip. de l'Egypte, Rept., Suppl., p. 172, pl. 1, Fig. 7.

Acanthodactylus scutellatus

Dumeril and Bibron, 1839.

Erp. Gen., 5: p. 272.

Acanthodactylus scutellatus

scutellatus, Loveridge, 1936,

Field, Mus. Nat. Hist., Zool.

Ser., 22: p. 61.

Common name: Nidua Lizard

Ninety individuals were sampled in all sandy localities of stations 1, 3 & 4. The largest individual was a male and measured 22.4 cm long in July. This species was recorded in Northern Sinai sand dunes by Marx (1968) and Werner (1982).

Range: Algerian Sahara to Southwest Asia (Marx, 1968).

Mesalina olivieri (Audouin).

Lacerta olivieri Audouin,

1829. Descrip. de l'Egypte.

Rept. Suppl., p. 175, pl. 2.

Figs. 1 & 2.

Eremias olivieri, Hass, 1951,

p. 274.

The genus Eremias Wiegmann,

1834 has been changed to

Mesalina Scherback, 1977

according to Arnold and

Gasperetti (pers. comm.)

(Farang and Banaja, 1980).

Common name: Small-Spotted Lizard.

Twenty five specimens were

collected in st. 1A & st. 3A,

coexisting with Acanthod-

actylus scutellatus. The

largest individual was a

male. It attained 15.8 cm long in November. It was recorded from Al-Arish area by Werner (1973).

Range: Rio de Oro (Spanish Sahara), eastward along the eastern border of the Mediterranean to Tunisia, Egypt and in Southwest Asia (Haas, 1951).

Family: Agamidae

Agama savignii Dumeril and Bibron Map (1)

Agama savignyi Dumeril and Bibron 1837, Exp., Gen., 4: p. 508.

Agama savignii (quoted from Werner, 1982 and Le Berre, 1989).

Common name: Savignii's Agama

Twenty seven individuals were collected from all sand dunes of the mean area. The largest individual was a male and measured 23.9 cm in length during May. This species was conspicuous and easily caught. It was recorded from Al-Arish area by Werner (1973).

Range: This species extends from eastern Egypt to Israel (Marx. 1968).

Agama stellio vulgaris Sonnini and Latreille Map (1)

Stellio vulgaris Sonnini & Latreille, 1802, Hist. Nat. Rept., 2: 22.

Agama stellio vulgaris, Schmidt and Marx, 1956,

Fieldiana Zool., 39:26 (Daan, 1967).

Common name: Starred Agama.

Thirty nine specimens were sampled in st. 2 with highest density in July, August and October. The largest individual was a female and measured 28.3 cm in length in June.

Range: Southeast Egypt, West Asia, and Northeast Africa (Marx, 1968).

Family: Scincidae

Chalcides ocellatus ocellatus (Forsk.) Map (1)

Lacerta ocellata, Forskal, 1775, Descip. Anim., p. 13.

Chalcides ocellatus, Boulenger, 1887. Cat. Liz. Brit. Mus., 3: p. 400.

Chalcides ocellatus ocellatus, Wettstein, 1928, Sitzber. Akad. Wiss. Wien, Math.Natur., 137, abt. 1, p. 784.

Common name: Eyed Skink.

Twenty nine skinks were captured from stations. 2, 3A and 5. The largest individual measured 4.0 cm long during July was a female. This species was recorded from Al-Arish area by Werner (1973).

Range: Northern Africa, Southern Europe and Western Asia (Lanka & Vit, 1985).

Mabuya vittata (Olivier): Map (1)

Scincus vittatus Olivier,

1804, Voy. Emp. Ottoman, 3: p. 103.

Mabuza vittata, Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 176.

Common name: Bridled Skink

A single female was caught between two old inhabited houses in st. 5. Its measurements were as follows: snout-vent length 8.5 cm; tail length 14.6 cm; forelimb 1.8 cm; hind limb 2.8 cm; distance between the two limbs 5.1 cm; body scale rows 23. It attained 2.6 gm in weight. This species was firstly recorded in Sinai.

Range: From North Africa to Southwest Asia (Marx, 1968).

Scincus scincus scincus (Linnaeus). Map (2)

Lacerta stincus Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 205.

Scincus stincus, Flower, 1933, Proc. Zool. Soc. London, 1933: p. 788.

Scincus scincus scincus, Loveridge, 1936, Field Mus. Nat. Hist., Zool. Ser., 22: p. 22.

Common name: Sandfish.

One male and two females of Scincus were sampled in st. 4 during spring and summer. The largest individual was a male and measured 16.8 cm long during June. It was recorded from Al-Arish by Werner (1973).

Range: It was found in sandy

deserts from Algeria to Pakistan (Eissa and El-Assy, 1975).

Sphenops sepsoides (Audouin) Map (2)

Scincus sepsoides Audouin, 1829, Descrip. de l'Egypte, Rept., Suppl.

Chalcides sepsoides Boulenger, 1887, Cat. Liz. Brit. Mus., 3: p. 407.

Sphenops sepsoides (Audouin). (quoted from Werner, 1968). Common name: Audouin's Sand-Skink.

Four individuals were collected in st. 1B. The largest specimen measured 15.7 cm in length in July was a male. This species was recorded from Al-Arish area by Werner (1973).

Range: Northern Africa to Southwestern Asia (Marx, 1968).

Family: Gekkonidae

Hemidactylus turcicus turcicus (Linnaeus) Map (2)

Lacerta turcicus Linnaeus, 1758, Sys. Nat., ed. 10, 1: p. 202.

Hemidactylus turcicus turcicus Loveridge, 1941, Copeia, 1941, p. 247.

Common name: Turkish Gecko.

Twenty three individuals were collected from the inhabited houses and ruins in stations 2, 3A and 5 during day and night with highest frequency in May and June.

The largest gecko was a male. It measured 10.7 cm in length during May. It was recorded from Al-Arish by Flower (1933).

Range: It has been introduced elsewhere in Asia, Europe and New World (Loveridge 1947).

Ptyodactylus hasselquistii guttatus Heyden Map (2).

Ptyodactylus guttatus, Heyden, 1827. Atlas nordl. Afr. Rept. p. 13, pl. 4., Fig. 1.

Ptyodactylus hasselquistii var. guttata, Anderson, 1898, Zool. Egypt, p. 65, pl. 6, Figs. 4 & 5.

Ptyodactylus hasselquistii guttatus Heyden (quoted from Werner, 1965).

Common name: Fan-Footed Gecko

Four geckos were captured from old buildings crevices during daytime in the inhabited town (st. 5). The largest individual was a male and attained 13.7cm in length during February.

Range: Southwest Asia eastward to west Africa and the Algerian Sahara (Marx, 1968).

Stenodactylus sthenodactylus sthenodactylus (Lichtenstein) Map (2)

Ascalabotes sthenodactylus Lichtenstein, 1823, Verz. Doubl. Mus. Zool. Berlin, p. 102.

Stenodactylus sthenodactylus, Flower, 1925, Proc. Zool. Soc. London, 1925, p. 939;

1933, *ibid*, 1933: p. 760. Stenodactylus sthenodactylus sthenodactylus, Loveridge, 1936, Field Mus. Nat. Hist. Zool. Ser., 22: p. 48.

Common name: Elegant Gecko.

Four regenerated-tailed individuals were collected from st. 3A and st. 5, coexisting mainly with Hemidactylus turcicus and Chalcides ocellatus.

The largest specimen was a male of snout vent length 4.4 cm in January. It was recorded in North Sinai by Marx (1968) and Werner (1973).

Range: From Tunisia east to Egypt; South to lake Rudolf and Southeast Asia (Marx, 1968).

Family: Chamaeleonidae

Chamaeleo chamaeleon musae (Daudin). Map (2)

Chamaeleon vulgaris musae, Steindachner, 1900, Denschr. Kais. Akad. Wiss. math-natur. Kl., 69: p. 331.

Chamaeleo Chamaeleon musae, Steindachner (quoted from Hillenius, 1966 & Werner 1982).

Common name: Chameleon

Twenty one individuals were caught from all stations except st. 5. The largest Chameleon was a female of 22.0 cm long in August. This species was recorded from Al-Arish area by Werner

(1973).

Range: South Europe, North Africa, and Southwestern, Asia (Marx, 1968).

Family: Varanidae

Varanus griseus griseus (Daudin).

Tubinambis griseus Daudin, 1803, Hist. Nat. Rept., 8: p. 352.

Varanus griseus, Boulenger, 1885, Cat. Liz. Brit. Mus., 2: p. 306.

Varanus griseus griseus, Mertens, 1954, Senckenb. Biol., 35: p. 354.

Common name: Desert Monitor.

A single male was secured from the sand dunes of st. 1 in July. It measured 58.8 cm in length. It was recorded from Al-Arish area by Werner (1973).

Range: Southwest Asia and Northern Africa to Rio de Oro (Marx, 1968).

Suborder: Serpentes

The collected specimens were 4 species belonging to 2 families, Colubridae and Viperidae.

Family: Colubridae

Lytorhynchus diadema (Dumeril and Bibron). Map (3)

Heterodon diadema Dumeril and Bibron, 1854, Exp. Gen., 7: 779.

Lytorhynchus diadema, Peters, 1862, Monatsber. Akad. Berlin, 1862: p. 272, pl. 1, Fig. 1.

Common name: Diademed Sand Snake.

A young specimen was captured by beating it by a whip while it was running on the sand dune of st. 3. It measured 39.4 cm in length in June. This species was recorded from the Northern Sinai by Flower (1933).

Range: From the Atlantic coast in North Africa to West Asia (Leviton and Anderson, 1970).

Psammophis schokari schokari (Forsk.) Map (3)

Coluber schokari Forskal, 1775, Descrip. Aim., p. 14.

Psammophis schokari Boulenger, 1896, Cat. Snakes Brit. Mus., 3: p. 157.

Psammophis schokari, Kramer and Schnurrenberger, 1963, Rev. Suisse Zool., 70: p. 517.

Common name: Schokari Sand-Snake

A couple of snakes (male and female) were sampled in st. 2 and st. 5. The female was the bigger and measured 41.0 cm long in April.

Range: Northern Africa, Somaliland, Southern Asia to central Asiatic Russia (Marx, 1988).

Spalerosophis diadema cliffordi (Schlegel) Map (3)

Coluber cliffordi Schlegel, 1837, Physion. Serp., 2: p. 163.

Zamenis diadema, Boulenger, 1893, Cat. Snakes Brit. Mus., 1: p. 410.

Spalerosophis diadema cliffordii Mertens, 1956, Senck. Biol., 37: 225.

Common name: Clifford's Snake.

Six individuals were collected from st. 3 and st. 4. They abundantly appeared in the latter station during spring and summer. The largest individual was a female and measured 1.64 m in length during April. This species was recorded from Al-Arish area by Werner (1973).

Range: Northwestern Africa
Southwestern Asia (Marx, 1959).

Family: Viperidae

Cerastes vipera (Linnaeus)
Map (3)

Coluber vipera Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 216.

Cerastes vipera Boulenger, 1891, Trans. Zool. Soc. London, 13: p. 155., pl. 18, Fig. 2.

Common name: Lesser Cerastes Viper.

Seven vipera were collected from the tip of sand dunes of stations 1 B, 3B and 4, with highest frequency in summer and autumn. The largest individual was a female and attained 28.4cm long during October. This species was recorded from Al-Arish area by Werner (1973).

Range: North Africa to Arabia (Marx, 1968).

Order: Chelonia

Family: Testudinidae

Testudo kleinmanni Lortet.
Map (3).

Testudo kleinmanni Lortet, 1883, Arch. Mus. Hist. Nat. Lyon, 3: p. 188.

Testudo leithi, Boulenger, 1889, Cat. Chel. Rhynch. Proc. Brit. Mus., p. 175.

A female tortoise was obtained from st. 1B during March. Its carapace measured 14.3 cm in length. This species was recorded from Al-Arish area by Flower (1933) and Marx (1956).

Range: From eastern Libya through northern Egypt and Sinai to the northern Negev Deserts (Mendelssohn and Geffen, 1987).

Family: Cheloniidae

Caretta caretta (Linnaeus)
Map (3)

Testudo caretta Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 197.

Caretta caretta Siebenroch, 1909, Synop. Schildk., 10: p. 549.

Common name: Loggerhead Turtle.

A single female was brought from the Mediterranean Sea bordering Al-Arish town (st. 5). The carapace measured 15.9 cm in length during

December.

Range: African coasts, Indian, Mediterranean Atlantic Oceans (Marx, 1968).

Chelonia mydas (Linnaeus)
Map (3)

Testudo mydas Linnaeus, 1758, Syst. Nat., ed. 10, 1: p. 1791.

Chelonia mydas Sowerby and Lear, 1872, Tort. Terrap. Turtles, pls. 59-60.

Common name: Green Turtle

A single female was also brought from the Mediterranean Sea bordering Al-Arish (st. 5). Its carapace measured 23.8 cm in length during November.

Range: All African coasts, Indian and Atlantic Ocean (Marx, 1968).

THE HERPETOFAUNAL COMMUNITIES IN RELATION TO HABITAT AND SEASONS:

1. In Relation To Habitat:

A total of 302 specimens of amphibians and reptiles were sampled from the five field stations. Station 1 represented the highest catch number of reptiles (82 specimens) belonging to 8 species. In st. 1A (palm trees area), A. scutellatus; M. olivieri and C. chamaeleon were sampled while in st. 1B (sand dune area), A. savignii; S. sepsoides; V. griseus; C. vipera and T. kleinmanni were found. Station 2 was repre-

sented by 7 species. It however, comprised 8 toads and 71 reptiles. A. stellio; C. ocellatus and H. turcicus were restricted to the rocky area while the others, B. viridis; A. savignii; C. chamaeleon and P. schokari were sampled in the vegetated area. The highest number of species was recorded in station 3 (11 species comprising 73 individuals) B. viridis was obtained from around a water well. The reptiles, C. ocellatus; H. turcicus and S. sthenodactylus were collected from under rocks and stones in st. 3A while in st. 3B, A. scutellatus; M. olivieri; A. savignii, C. chamaeleon; L. diadema; S. diadema and C. vipera were sampled. Station 4 encompassed 53 individuals belonging to 6 species. They are A. scutellatus; A. savignii; S. scincus; C. chamaeleon; S. diadema and S. diadema and C. vipera. The lowest number of individuals (15 specimens) was recorded in station 5. It was however, comprised 8 species. C. caretta and C. mydas were brought from the Mediterranean Sea.

2. In Relation To Seasons:

According to the data gathered from January to December, 1988, the catches indicated that there was no significant difference in the

number of species through spring, summer and autumn. This number however, declined during winter.

The largest catch number of individuals was obtained during spring (87 specimens), summer (86 specimens). The lowest number occurred during winter (47 specimens). At the level of months, the highest catch number of species was during March and October (32 & 31 specimens respectively). The lowest catch was during January (9 specimens).

DISCUSSION

The foregoing reveals that the herpetofauna of Al-Arish area encompasses 21 species. One amphibian only was collected, and the others were reptiles. In this respect, one can consider the area is very poor in amphibians. The drop in the number of the existing reptiles and amphibians may be attributed to the rehabilitation of Sinai in general, and the big rise of the North Sinai population after the recovery of the whole peninsula from the Israelis. The people and their houses increased in the studied area about ten times in the last ten years. One can expect that such environmental changes will not be suitable for many reptiles to

thrive. Flower (1933) observed that Sinai was the richest area in Egypt herpetologically. This was over 55 years ago when Sinai was nearly deserted and only inhabited by dispersally non-settling bedouins forming few thousands of people in such vast area. Now, such conditions are not similarly present, at least Northern Sinai, and the reptiles dramatically decreased in number regarding individuals and species too. Some species which can not tolerate the new conditions eventually escaped to unpopulated areas such as Acanthodactylus scutellatus. On the other hand, species which could be familiarized to the new conditions increased in number, namely, Agama stellio vulgaris. Acanthodactylus is the most evident reptilian genus of the Egyptian herpetofauna (Marx, 1968). Although it was represented by one species, it constituted about 30% of the total collection of herpetofauna. It is a typical and exclusive cursorial inhabitant of sand dunes (Haas, 1943 and Werner, 1982). Adaptations of such species of reptiles to sand as a habitat have been discussed and occasionally investigated previously (Buxton, 1923; Mosauer, 1932; Stebbins, 1943 & 1944 and Arnold, 1984).

The frequency of Agama stellio vulgaris was restricted to the rocky area in the cultivated station st. 2). Daan (1967) reported that this species is restricted to vertical habitats such as rocky outcrops. These habitats may provide easy access to hiding places or refugia (Hertz and Nevo, 1981). After examining this species, its taxonomy became pronounced. Though Daan (1967) illustrated that the subspecies A. S. brachydactylus, Werner (1982) suggested that the taxonomy of A. stellio in Sinai remains uncertain.

The Egyptian tortoise, Testudo kleinmanni was recorded several times in the northern sand dunes of Sinai (Flower, 1933; Schmidt and Marx, 1956 and Loveridge and Williams, 1957). Nevertheless, it was much rare in the dunes as only one specimen was sampled there (st. 1). The scarcity of this species may be due to several reasons. The first is that hundreds of specimens were collected from the dunes, sold in Al-Arish markets and offered for sale in the pet shops in Cairo and Alexandria. Moreover, a large number of individuals are usually killed for scientific research. We recommend the establishment of a nature reserve for this threatened

species in Sinai.

The occurrence of Mabuya vittata in Sinai was expected as it was recorded in Egypt (Anderson, 1898; Flower, 1933 and Marx, 1968) and in Israel (Barash and Hoofien, 1956; Hoofien, 1972 and Werner, 1987). Werner (1982) claimed that M. vittata may be absent in Sinai due to the scarcity of suitable habitats. It frequents the humid biotopes in its distribution (Le Berre, 1989). However, the capture of a specimen from Al-Arish town (st. 5) suggests that this skink may be available in Sinai but in small populations.

Comparison of the present collection species with those of Flower (1933); Schmidt and Marx (1956) and Werner (1973 & 1982) reveals that Mabuya vittata was firstly recorded in Sinai. Six reptilian species are appended to the fauna of Al-Arish area. They are, Agama stellio vulgaris; Ptyodactylus hasselquistii guttatus, Lytorhynchus diademata; Psammophis schokari; Caretta caretta and Chelonia mydas. Two species, Agama pallida (Reuss) and Psammophis aegyptius (Marx) already recorded in Al-Arish area (Werner, 1973) were not found in the present collection. Localities which are charac-

terized by their sand dunes (sts. 1B, 3B & 4) comprised the majority of species. They are, Acanthodactylus scutellatus; Mesalina olivieri; Agama savignii; Scincus scincus; Sphenops sepsoides; Chamaeleo chamaeleon; Varanus griseus; Spalerosophis diadema; Lytorhynchus diadema; Cerastes vipera and Testudo kleinmanni. Also, A. scutellatus; M. olivieri in addition to Testudo kleinmanni were found in palm trees area (st. 1B) within the dunes. On the other hand, localities which are characterized by their old building ruins and stones (st. 2 & st. 3A) in addition to their sparse vegetation attracted the following species, Agama stellio, Chalcides ocellatus; Hemidactylus turcicus; Stenodactylus sthenodactylus and Psammophis schokari. Mabuya vittata and Ptyodactylus hasseiquistii were confined to the human inhabited locality (st. 5). These data coincided with the foregoing ecological studies (Flower, 1933; Werner, 1973 & 1982 and Arnold, 1984).

Concerning the seasonal distribution of species, the data gathered indicated that there is no significant difference of the total catch number of species from one season to another except in

winter. This may be because the species were hibernating or buried in the sand during winter in addition to the rain effect while in the other seasons, species were captured in suitable weather.

Much remains unrevealed about ecological, behavioural and physiological studies of the herpetofaunal population of Al-Arish area. Though Sinai might be searched thoroughly, the occurrence of more species however, is anticipated. Some species may have also migrated to new areas after human invasion to their places.

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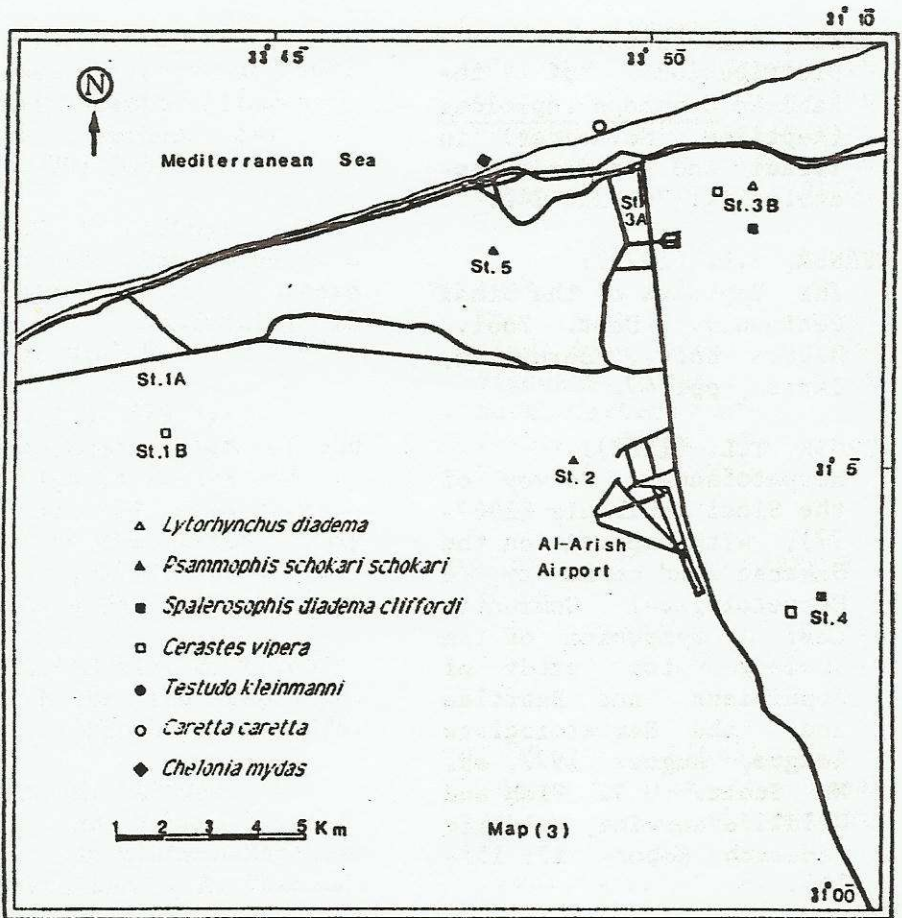
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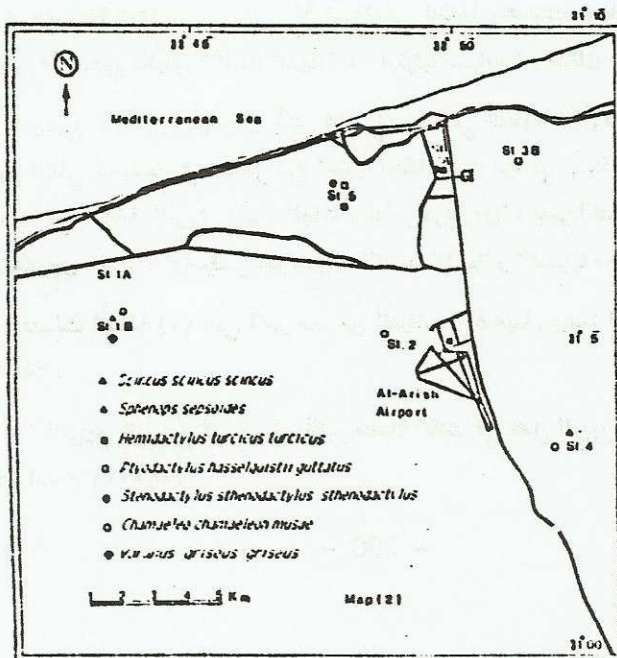
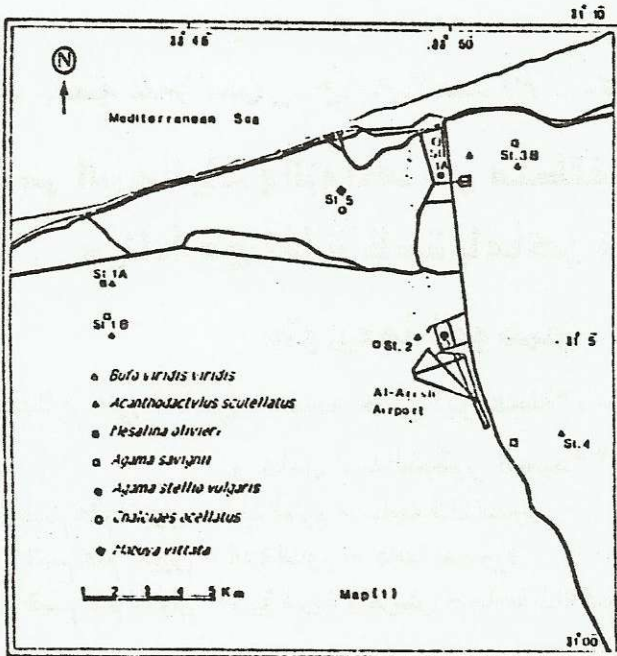
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تبت جمعية علم الحيوان - ج.م.ع. العدد ٣١ - ١٩٩٠.

حصر البرمائيات والزواحف في منطقة العريش (شمال سيناء) مع إشارة خاصة بأماكن معيشتها

وتوزيعها الموسمي

عبدالفتاح علي غباشي ، محمد حسن أبو عجلة* ، حكمت محمد طنطاوي

و عادل عبدالشكور السيد**

قسم علم الحيوان - كلية العلوم - جامعة قناة السويس

* قسم علم الحيوان - كلية العلوم - جامعة المنصورة

** قسم علم الحيوان - كلية التربية بالعريش - جامعة قناة السويس

تم جمع عدد ٣٠٢ من البرمائيات والزواحف من مدينة العريش وأربعة محطات محيطية بها خلال ١٢

شهرًا من الدراسة ابتداءً من شهر يناير حتى شهر ديسمبر ١٩٨٨.

تم حصر ٢٦ نوعًا ينتمون إلى ١١ فصيلة في المنطقة وخصنت نوعًا واحدًا من الضفادع هو 'بوفو

فيريديس' ، ترستين مائيتين 'كاريتا كاريتا' ، 'كيلوتيا ميداس' وكذلك ١٨ نوعًا من الزواحف الأرضية.

كان نوع 'أكلتودا أكتيلوس' أكثر الأنواع سيادة في المنطقة طوال فصول السنة حيث بلغ من ٢٠٪ من

المجموع الكلي للميئات. تم تسجيل نوع 'مهيوتا فيتاتا' لأول مرة في سيناء ، كما تم إضافة ستة أنواع من

الزواحف في منطقة العريش وهي 'أهاما سيتيليو فوفارس' ، 'بيودا أكتيلوس هاسكلويستي جوتانس' ،

'ليغورينكوس دياديا' ، 'زاموفيس شوكاري' ، 'كاريتا كاريتا' و 'كيلوتيا ميداس'.

استملت المنطقة (١) على أكبر عدد من الميئات (٨٢ عينة) بينما امتدت المنطقة (٥) على أقل عدد

(١٥ عينة) .

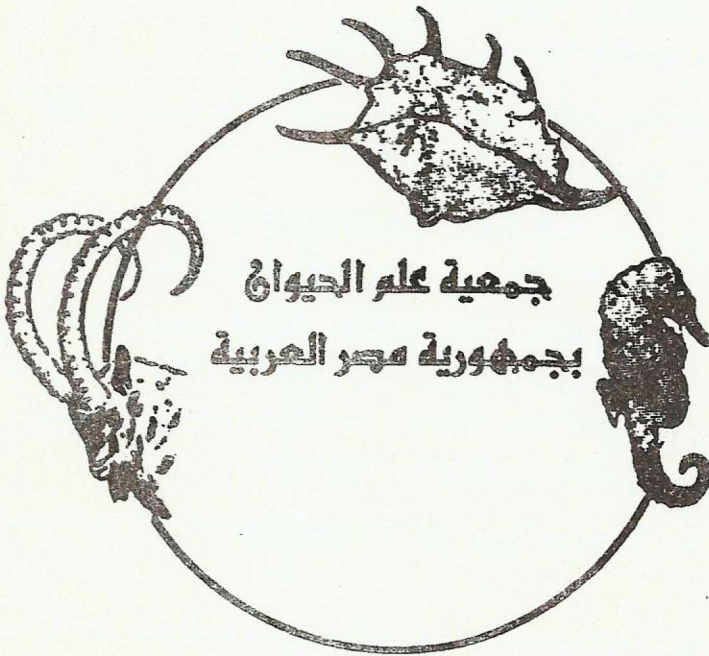
أما التوزيع الموسمي قد بين أن أكبر حصيلة كانت في فصل الربيع (٨٧ عينة) بينما كان أقل عدد

في فصل الشتاء (٤٧ عينة) .

ثبت جمعية علم الحيوان

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٢١



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