Name: Abraham Shalom Haim

CURRICULUM VITAE AND LIST OF PUBLICATIONS

I. CURRICULUM VITAE

1. PERSONAL DETAILS

Name:	Abraham Shalom Haim
Marital Status:	Married + 3
Citizenship and Passport Number:	UK 505092514
	IL 20541983
Permanent Home Address:	20 Haela St., Timrat23840
Home Telephone Number:	972-4-6542713
Office Address and Phone:	Evolutionary & Environmental Biology, Biology, Leon H. Charney School of Marine Sciences, University of Haifa, Mount Carmel, Haifa, 31905, Israel.
Electronic Address:	ahaim@research.haifa.ac.il

2. HIGHER EDUCATION

B.Sc. - Zoology and Genetics: The Hebrew University of Jerusalem, 1964-1967, B.Sc. Degree: September 1967.

M.Sc. - Zoology: The Hebrew University of Jerusalem, 1967-1969, M.Sc. Degree: November 1969.

Ph.D. - Zoology (Environmental Physiology): The Hebrew University of Jerusalem, 1971-1976. Ph.D. Degree: March 1977.

High School Teaching Diploma: The Hebrew University of Jerusalem, 1972-1974. Degree: March 1975.

Post-Doctoral Research: Mammal Research Institute, Dept. of Zoology, University of Pretoria, Pretoria, South-Africa. 1978-1979.

3. ACADEMIC RANKS AND TENURE IN INSTITUTIONS OF HIGHER EDUCATION

DATES	NAME OF INSTITUTION AND DEPARTMENT	RANK
1971-1976	The Hebrew University of Jerusalem Zoology	Assistant, Instructor
1976-1977	University of Haifa – Oranim, Biology	Teacher (Instructor-Dr.)
1978-1981	University of Haifa – Oranim, Biology	Lecturer
1976-1978 1980-1991	Everyman's University, Life Sciences	Tutor
1977-1978	Technion, Haifa, Biology	Associate Lecturer
1979-1980	Ben-Gurion University of the Negev Life Sciences	Associate Lecturer
1982-1992	University of Haifa – Oranim, Biology	Senior Lecturer, Tenure
1992-1996	University of Haifa – Oranim, Biology	Associate Professor
1995-2001	The HebrewUniversity of Jerusalem Faculty for Agriculture – Animal Sciences, Environmental Sciences	Part-Time Teacher
1996-2014	University of Haifa – Biology	Full Professor
2014-	University of Haifa – Biology	Professor Emeritus

Research Visits to Overseas Laboratories

Fall 1977 — Research Associate. Dept. of Zoology, University of Oulo, Oulo, Finland. Photoperiodicity and heat production in the pigeon. A grant from the Finnish Ministry of Education.

Summer 1980 — A research visit of two months to the Mammal Research Institute, University of Pretoria, South-Africa.
Thermoregulatory responses to long scotophase, and long scotophase and cold acclamation, in two diurnal murid rodents. A grant from the CSIR.

Summer 1982 — A research visit of two months to the Zoophysiological laboratory at the University of Oslo, Oslo, Norway.
Crude oil and its thermoregulatory effect on the rat - a model for a mammal with fur. A grant from the Norwegian Ministry of Education.

Summer 1983	A research visit of two and a half months to the mammal Research Institute, University of Pretoria, South Africa, bioenergetics and urine analysis of the mole rat *Cryptomys hottentotus* and the Vlei rat *Otomys irroratus*. A grant from the CSIR.
Summer 1984	A research visit of six weeks to the mammal Research Institute, University of Pretoria. Bioenergetics and urine analysis of two related squirrels form the genus xerus. Research supported by CSIR.
Fall 1985	A research visit to the Department of Zoology, University of Antwerpen (RUCA), Belgium. Urine analysis of the European mole *Talpa europea*. A research grant from the Flemish community.
1986-1987	Sabbatical leave (half a year) : Mammal Research Institute, University of Pretoria. Bioenergetics of the Cape porcupine *Hystrix africsaeaustralis* under different photoperiod and temperatures regimes. Seasonal acclimatization in the pouched mouse *Saccostomus campestris*. Research supported by the CSIR.
Summer 1987	Research visit to the Mammal Research Institute to complete the Sabbatical projects.
Summer 1990	Research visit to the Laboratory of animal and cell biology, U.L.B Brussels, The behaviour response of *Acomy srussatus* to urine and feaces of *A. cahirinus*, together with Dr. F. M. Rozenfeld.
Spring & Summer 1993	Sabbatical leave (half a year): Department of Zoology, University of Aberdeen, Aberdeen, Scotland. The response of wood-mice *Apodemus sylvaticus* from high latitudes to changes in photoperiod. Department of Behavioral Sciences, Latrobe University, Bundoora Australia. The daily rhythm response of rats to photoperiod and temperature manipulations. The effect of exercise and sleep on daily rhythms of body temperature and melatonin in humans.
May 1993	The Polish Academy of Sciences. A visit of 10 days to Poland, Prof. January Weiner, Department of Ecosystems Studies, Jagiellonian University of Krakow.
August 1994	A visit of 3 weeks to the Laboratory for Cell and Animal Biology, The Free University of Brussels, Belgium, on an exchange program between Israel and the Valonic Community. On the Coexistence of the Golden Spiny mouse and the Bushy Tailed Gerbil.
July 1996	The Mammal Research Institute, University of Pretoria. Body temperature daily rhythms. The response to α and β blockers.
August 1997	Department of Zoology, University of Oulu, Finland. Metabolic learning activity and body temperature daily rhythms.

October 1998	Faculty of Science and Agriculture, University of KwaZulu-Natal, Pietermaritzburg, adrengenic blockade and daily rhythms of body temperature and oxygen consumption of the Black-tailed Tree Rat.
October 1999	Sabbatical leave, Department of Entomology and Zoology,
February 2000	University of Pretoria. Biological Control of Praomys.
September 2000	University of Pretoria, Biological Control of Praomys.
August 2004	University of Pretoria, Biological Control of Praomys.
September-October	2007 University of British Colombia, Vancouver, Livable Cities.
August – October	2010 Linfield College, Mcmenvill, Oregon USA, HSP in response to stress of light interference in Golden spiny mice and Salinity in algae.

4.**OFFICES IN UNIVERSITY ACADEMICADMINISTRATION**

1976 – 1978	Member in Purchasing Committee
1977 – 1978	Advisor to second year Biology students
1981 – 1982	Advisor to third year Biology students
1984 – 1986	Chairman of the Departmental Committee Management
1985 – 1996	Member of University Professional Committee
1987 – 1993	Elected Chairman of the Biology Department, Oranim – University of Haifa
1994 – 1996	Nominated Chairman of the Biology Department
1997 – 1999	A Nominated Member – University of Haifa Senate
2000 – 2002	Elected Chairman of the Department of Natural Resource and Environmental Management, University of Haifa
1998 – present	Ministry of Education, member of committee for promoting education college teachers to Senior lecturer.
2000 – 2001	Member of Nomination Committee, University of Haifa
2001 – 2007	Elected Dean, Faculty of Science and Science Education (Faculty of Natural Sciences), University of Haifa
2006 – 2008	Nominated Chairman, Department of Evolutionary and Environmental Biology, University of Haifa
2008 – 2009	Nominated Dean of Faculty of Science and Science Education

(Faculty of Natural Sciences), University of Haifa

2010 – 2014	Head of Department Natural Resources and Environmental Management, Faculty of Management University of Haifa.
2010 – present	Head of: The Israeli Centre for Interdisciplinary Research in Chronobiology, University of Haifa, Faculty of Natural Sciences.
2012 – present	Deputy to the head of Leon Charney school of Marine sciences.
2014 – present	Yitzhak Shamir Research Center, head of Management Committee.

5. **SCHOLARLY POSITIONS AND ACTIVITIES OUTSIDE THE UNIVERSITY**

1968-1970	Head of Zoological team to the Sinai Survey of the Hebrew University.
1983-1989	The Zoological Society of Israel, member of Committee. organization of the Annual meeting, Oranim 1984.
1988	10th International Congress on Photobiology. Convener of a Symposium, Chronobiology: Circadian and Circuanual Rhythms. Jerusalem, November 1988.
1988-1989	The Zoological Society of Israel, member of Committee. Organization of the Annual Meeting, Oranim 1984 and 1988.
1991	20th International Conference on Chronobiology. Member of the Organizing Committee, Ramat-Gan, June 1991.
1991	Sixth International Colloquium on the Ecology and Taxonomy of African Small mammals. Organizer. Mitspe Ramon, August 1991.
1991-	"Rodens&Spatium" – Member of the International Scientific Committee.
1995-1998	The Zoological Society of Israel, member of committee. Since January 1998– treasurer.
1996-	"Zoology in the Mediterranean Ecosystem", organizer of Symposium, Oranim, Kiryat Tivon, April 1996.
1996	"Israel Society for Physiology and Pharmacology", member of the Academic Committee.
1997	"Nature Conservation in Israel in the 21st Century, in the Light of Distribution Changes of Animals following Human Activity", organizer of Conference (together with Dr. Daphna Lavi). Oranim – University of Haifa, April 1997.

1998	"Rodens&Spatium" organizer of 6th International Meeting, Acre, Israel, May 3-8.
1998	Cycles and Rhythmicity, Symposium, Oranim – University of Haifa, June 1, 1998.
1999-2002	Chair Person of: The Zoological Society of Israel.
2008-	Vice-President of International Zoological Society.
2009-	Organizer together with Prof. Israel Ashkenazi and Prof.Yaron Dagan, The third International Congress of Applied Chronobiology and Chronomedicine, May 2009 Akko (Acre) Israel
2010-	Editorial board Integrative Zoology
2010-	Editorial Board of Chronobiology International, Journal of Basic & Clinical Physiology & Pharmacology, Integrative Zoology.
2012-	Organizer the 21st International Congress of Zoological Sciences (ICZS), September 2012, Haifa Israel, vice president of the society.
2012-	Board member International Light Association (ILA) organizer 2014 meeting.
2012-	Vice Chairperson of LoNNe (lose of the night network) COST program.
2013-	Vice president The Israel Lighting Society (TILS).
2014-	The second International Light Day Haifa September 21-22/ ILA & TILS

Referee for the following journals:

1) ActaTheriologica
2) Animal Behaviour
3) Canadian Journal of zoology
4) Chronobiology International
5) Comparative Biochemistry and Physiology A
6) Comparative Physiology B
7) Hormone & Behaviour
8) Integrative Zoology
9) Israel Journal of Zoology
10) Journal of Comparative Physiology B.
11) Journal of Thermal Biology
12) South-African Journal of Sciences
13) South-African Journal of Zoology
14) Vie et Milieu
15) Mammalia
16) Physiology and Behaviour
17) Journal of Chemical Ecology
18) Nature

19) Journal of Zoology London
20) Journal of Mammalogy
21) Ecology
22) Journal of Experimental Zoology
23) PlosOne
24) Royal Society
25) eLS, Citable Reviews in the Life Sciences
26) Journal of Basic & Clinical Physiology & Pharmacology
27) Journal of Arid Environments
28) Journal of experimental biology

Referee of grants for the:

1) FDR (Foundation for Research Development), South Africa.
2) The Israel Academy of Sciences and Humanities Basic Research.
3) BSF - United States-Israel Bi-national Science Foundation.
4) GIF - The German-Israeli Foundation for Scientific Research and Development.
5) ISF – Israel Science Foundation
6) Ecology Foundation, Israel.
7) The Ministry for Environmental Affairs.
8) The Ministry of Agriculture.
9) National Geography

Examiner of several Ph.D. and M.Sc. theses submitted in Israel and South-Africa.

Guidance for third and fourth year students in final projects for B.Sc. degree, Biology, University of Haifa and University of Haifa Oranim. Projects for M.A, students at the Department of Natural Resources and Environmental Management, University of Haifa.

6. ACTIVE PARTICIPATION IN SCHOLARLY CONFERENCES

	Conference	**Place and Date**	**Title of Your Presentation or Discussion**
1)	XXVI International Congress of Physiology Sciences. Jerusalem Satellite Symposium on Environmental Physiology	Jerusalem, October, 1974	Thermoregulation and non- shivering thermogenesis as factors limiting distribution of the Golden Spiny mouse (*Acomys russatus*).
2)	XXVII International Congress of Physiological Sciences Satellite Symposium on Effectors of Thermogenesis	Geneva, Switzerland, July, 1977	Non-shivering thermogenesis and *implication of the thyroid in cold labial and cold resistant populations of the Golden Spiny mouse (*Acomys russatus*) (with Borut and Castel).
3)	Strategies in Cold	Jasper, Albert., Canada, October, 1977	The response of coldsensitive Golden Spinymouse (*Acomys russatus*) to melatonin (with A.Borut)

4)	8th International Congress of Biometeorology	Shefaim, September, 1979	Heat production in cold and long scotophase acclimated and winter acclimatized rodents (with F. Le R. Fourie).
5)	Third International Theriological Congress(ITC)	Helsinki, Finland, August, 1982	1) Adaptive thermoregulatory patterns in speciating mole rats (with E. Nevo & G. Heth). 2) Non-shivering thermogenesis in long scotophase and cold acclimated *Apodemus mystacinus* (Rodentia: Muridae).
6)	IV INTCOL Ecology and Taxonomy of African Small Mammals	Windhoek, Namibia, August, 1984	*Cryptomys hottentotus* Physiological adaptationsto the subterranean environment by the mole rat.
7)	International Symposiumon the metabolic Complications of Human obesities	Marseille, France, May-June 1985	Effect of photoperiod in dietary thermogenesis (poster).
8)	IV International Theriological Congress	Edmonton, Canada, August, 1985	Adaptations of NST inmurids (Rodentia) from different habitat (with A. Borut).
9)	Third International Conference of the Israel Society for Ecology & Environmental Quality Sciences	Jerusalem, June, 1986	Comparison of ecophysiological parameters between two *Apodemus* species coexisting in the same habitat.
10)	International Symposium on Adaptation for Survival in mammals	Pretoria, South Africa, January, 1987	Metabolism and thermoregulation in rodents: Are these adaptations to habitat and food quality?
11)	V INTCOL Ecology and Taxonomy of African Small mammals	Rogate, U.K., August, 1987	Ecophysiology and distribution of some small African mammals.
12)	10^{th} Conference of the Metabolic rates and European Society for Comparative Physiology and Biochemistry	Innsbruck, Austria, September, 1988	Metabolic rates and induced seasonal acclimatization in the Cape Porcupine *Hystrix africaeaustralis* (poster).
13)	10^{th} International Congress on Photobiology	Jerusalem, November, 1988	Photoperiod changes and heat production in *Meriones crassus* - The role of circadian rhythms of body temperature in seasonal acclimatization.

14)	Binational Meeting of Germany/Israel	Jerusalem, March, 1989	Metabolic rates and thermoregulation - effectof seasonal acclimatization on the pouchedmouse (*Saccostamus campestris*) (with G.T.H. Ellison).
15)	Thermal Physiology Satellite Symposium of the XXXI International Congress of Physiological Sciences	Tromso, Norway, July, 1989	Non-shivering thermogenesis and its ecological significance (with I. Izhaki).
16)	Fifth International Theriological Congress (ITC)	Rome, Italy, August, 1989	1) Heat production and dissipation in new-born Cape porcupine (*Hystrix africaeaustralis*) and its ecological significance (with van Aarde R. J.). 2) Winter acclimatization in the thermoregulatory mechanisms of non-hibernating mammals.
17)	11th Conference of the European Society for Comparative Physiology and Biochemistry	Reims, France, September, 1989	Seasonal acclimatization of food and energy consumption in rodents from different environments.
18)	The 13th International Symposium on Clinical Hyperthermia	Akko, Israel, May, 1990	Thermoregulation in rodents: The response to changes in photoperiod.
19)	3rd International Colloquium on the Rodent and its Environment	Lyon, France, March, 1991	1) The role of chemical communication in the co-existence of *Acomys russatus* and *Acomys cahirinus* (muridae, Rodentia). 2) Behavioral response of *Acomys russatus* to odours of conspecific and heterospecific rodents (with Rozenfeld F.M.).
20)	20th International Conference on Chronobiology	Ramat-Gan, Israel, June, 1991	Seasonal Acclimatization of rodents changes in daily patterns of thermoregulation and energetics: the role of photoperiodicity.
21)	The 6th International Colloquium on the Ecology and Taxonomy of Small African Mammals	Mitzpe- Ramon, Israel, August, 1991	A comparative study of heat production and thermoregulation in two sympatric gerbils (*Gerbillus gerbillus* and *G. pyramidum*).
22)	MEDECOS VI - International Conference on	Maleme (Crete), Greece, September, 1991	The coexistence of two *Apodemus* species in the Mediterranean woodlands of Israel.

	Mediterranean Climate Ecosystems		
23)	European Society for Chronobiology8th Annual Meeting	Leiden, The Netherlands, May, 1992	Body temperature rhythms in long photoperiod acclimated golden spiny mice *Acomys russatus* effects of melatonin (with Zisapel N.).
24)	The 5th International Conference of the Israel Society for Ecology & Environmental Quality Science	Jerusalem, Israel, June, 1992	1) Food and energy consumption in rodents from different environments: the role of photoperiod in seasonal Acclimatization, (poster). 2) Rodent populations recovering from fire in an East-Mediterranean forest.
25)	International Workshop: Role of Fire in Mediterranean Ecosystems	Banyulus-Sur-Mer, France, September, 1992	Post-fire resilience of rodents in an East-Mediterranean natural pine forest on mount Carmel, Israel.
26)	Society for Experimental Biology Annual Meeting	Canterbury, U.K., March-April, 1993	Resilience to fire, the response of rodents to different management regimes.
27)	II Conference on Dormice (Rodentia, Gliridae)	Fuscaldo,Italy May, 1993	Thermoregulation and rhythmicity in *Eliomys melanurus*, from the Negev Highlands, Israel.
28)	4th International Conference The Rodent and its Environment	Mikoyajki, Poland, May, 1993	Seasonal acclimatization of daily rhythms of body temperature in two rodent species of different origins inhabiting Mediterranean woodlands.
29)	Sixth International Theriological Congress(ITC)	Sydney, Australia, July, 1993	Comparative physiology of thermoregulation in rodents: Adaptation to arid and mesic environments.
30)	9th International Hibernation Symposium	Crested Butte, Color., U.S.A., October, 1993	Thermoregulatory "strategies" of two *Apodemus* species inhabiting a cold environment on mount Hermon.
31)	2nd International Symposium on the Harderian Gland	Sorrento, Italy, June, 1994	The Harderian gland of coexisting spiny mice of the genus *Acomys* (poster) (with U. Shanas).
32)	Pharmacology of Thermoregulation	Giessen, Germany, August, 1994	1) Daily rhythms of body temperature in coexisting rodents of the genus *Acomys* acclimated to long photoperiod: effects of ethanol and melatonin (with Zisapel N.). 2) The daily circadian response of golden spiny mouse (*Acomys russatus*) to

			noradrenaline injection (Poster, with Kronfeld & Zisapel).
33)	2nd International Conference on Forest Fire Research	Coimbra, Portugal, November, 1994	Changes in the rodent community in a pine woodland recovering from fire: The response to different management regimes.
34)	Fifth International Conference: Rodens & Spatium	Rabat, Morocco, March, 1995	Interaction between *Acomys russatus* and *Sekeetamys calurus*: Two rodent species from extreme arid environments (poster) (with Rozenfeld F.M.).
35)	American Physiological Society: Understanding the Biological Clock from Genetics to Physiology	Hanover,New Hampshire, U.S.A., July, 1995	Activity and body temperature rhythms in the Golden spiny mouse: Response to photoperiod under the influence of social cues (poster).
36)	22nd World Conference on Chronobiology	Ferrara, Italy, September, 1995	Coexistence of mice of the genus *Acomys*: Daily rhythms of body temperature in *Acomys russatus* and the roles of heterospecific odour and pineal gland (with Zisapel N.).
37)	ZSSA Symposium International Zoology Subdisciplines of the Subcontinent	Pretoria, South-Africa, July, 1996	Spatial and temporal segregation in coexisting rodents: Ecophysiological adaptations.
38)	10th International Symposium. Pharmacology of Thermoregulation	Memphis, Tenn., U.S.A., August, 1996	Daily changes in sympathetic activity: The thermoregulatory effects of the beta-blocker propranolol (poster).
39)	17th Annual Conference European Society for Comparative Physiology and Biochemistry	Antwerp, Belgium, August, 1996	Thermoregulatory responses of mesic and xeric rodent species to photoperiod manipulations.
40)	Photic and Non-Photic Entrainment of Biological Rhythms. The European Society for Chronobiology	Halle, Germany, March, 1997	Body temperature daily rhythms in the striped mouse *Rhabdomys pumilio*: The effectsof alpha and beta blockade (with Van Aarde R. J.).
41)	XXV IEC Satellite Sympiosium: Time Energy& Behaviour Constraints and Interaction	Vienna, Austria, August, 1997	Body temperature daily rhythms in diurnal rodents from arid environments: The role of body mass.
42)	International Workshop: Fire, landscape and the Dynamics in the Mediterranean area	Banyuls-sur-Mer, France, September, 1997	The changes of a post-fire habitat as a response to Mountain Goat (*Capra aegagrus*) grazing on Mount Carmel, Israel.

43)	Medecos VIII Conference on Mediterranean Type Ecosystem	San Diego, Ca., U.S.A., October, 1997	Comparative Physiology of two spiny mice (*Acomys cahirinus*) populations inhabiting different slopes in the Mediterranean ecosystem.
44)	6th International Conference Rodens & Spatium	Akko, Israel, May, 1998	Foraging behaviour of the golden spiny mouse: Influence of conspecific and heterospecific odours (with Baudoin C.).
45)	Euro-American Mammal Congress	SantiagoDe Campostela, Spain, July, 1998	Mus species inhabitants of post fire habitats in Mediterranean ecosystems: physiological adaptations of *M. macedonicus*.
46)	XI International Symposium Pharmacology of Thermoregulation	Sevilla, Spain, May, 1999	Daily rhythms of nonshivering thermogenesis in common spiny mice *Acomys cahirinus*: under short and long photoperios.
47)	3rd European Congress of Mammalogy	Jyvaskyla, Finland, June, 1995	Comparative physioilogy of wood mice, genus *Apodemus*.
48)	The 7th International Conference of the Israel Society for Ecology and Environmental Quality	Jerusalem, Israel, June, 1999	Habitat response to grazing: The different abilities of rodent species to use feces as a water source.
49)	8th International Symposium on small African Mammals	Paris, France, July, 1999	1) Foraging behaviour of the Golden Spiny Mouse: influence of conspecific and heterospecific odours (with Baudoin C.). 2) Influence of heterospecific odours on feeding bahaviour under field conditions in a diurnal rodent, the golden spinymouse (*Acomys russatus*) with (Dobly A. and Rozenfeld F.M.). 3) Thermoregulatory and metabolic responses to photoperiod manipulations in a mesic population of Common Spiny Mouse *Acomys cahirinus.*
50)	International Congress on Chronobiology	Washington, D.C., U.S.A., September, 1999	Body temperature and urine secretion volume daily rhythms of the social vole *Microtus socialis*: The effects of light flashes (with Zisapel N.).
51)	2nd European Vertebrate Pest Management Conference	Braunschweig, Germany, September, 1999	The possibility for population control of the social vole *Microtus socialis*: By the use of photoperiod manipulations (with Brandes O. & Afik D.).

52)	International Symposium: Forest Fires: Needs & Innovations	Athens, Greece, November,1999	Why mice of the genus *Mus* are successful invaders into post fire habitats?
53)	7th International Conference Rodens & Spatium	Chezca Boduvice, Czech Republic, July, 2000	Body temperature differences of common spiny mice (*Acomys cahirinus*) on north and south facing slopes microhabitats (with Shanas U., Afik D., Scantlebury D.).
54)	Human Conflicts with Wildlife: Economic Considerations	Fort Collins, Colorado, U.S.A., August, 2000	A possible chronobiological solution for pest control: reducing human conflict with wildlife (Poster with Afik D.).
55)	Medecos IX Conference on Mediterranean Type Ecosystem	South-Africa, Stellenboch, September 2000	The use of small mammal community composition for forest habitat quality: The effect of deer grazing (with M. Inbar, B. Magal).
56)	International Conference: Forest Research - A Challenge for an Integrated European Approach	Thessaloniki, Greece, 2001	Fire size and location in forest restoration: The use of small mammal community structure for bioindication.
57)	International Workshop: Fire and Biological Processes	Banyulus-Sur-Mer, France, 2001	1) Genetic diversity under environmental stress: Intraspecific differences between spiny mice (with R. Ben-Shlomo).
58)	3rd European Vertebrate Pest Management Conference	Maaleh Ha Chamisha, Israel, September, 2001	2) Light interference during the dark phase of the social vole *Microtus socialis* - do they have an energetical response? (with Scantlebury M., Koon S., Shanas U.).
59)	8th International Conference: Rodens & Spatium	Louvain-la-Neuve, Belgium, July, 2002	3) Differential physiological capabilities of common spiny mice (*Acomys cahirinus*) from adjacent micro-habitats (with Shanas U., Afik D., Scantlebury M.).
60)	Society for Integrative and Comparative Biology Annual Meeting	Anaheim, Ca., U.S.A. January, 2002	Comparative physiology of spiny mice populations – effects of slope facing micro-habitats (with Shanas U. and Scantlebury M.).
61)	Experimental Biology &Comparative physiology	San Diego, Ca., U.S.A., August, 2002	Food consumption and thermoregulation Of rodents from xeric and mesic environment
62)	International Symposium: Biological Rhythms in Livestock	Messina, Italy, October 2002	Seasons out of time: The impact of light interference in seasonal acclimatization of thermoregulatory and reproductive systems (with Shanas U.).

63)	Symposium on the Ecology and Taxonomy of Small African Mammals	Moroguru, Tanzania, July 2003	Comparative physiology of heat production in rodents under increasing salinity: Effects of habits and habitats.
64)	4th European Vertebrate Pest Management Conference	Parma, Italy, September 2003	Use of integrated methods for the control of vole populations.
65)	XVI International Symposium on Night and Shiftwork	Santos, Brazil, November 2003	Seasonality and seasons out of time – the effects of illumination vole pollution.
66)	9th International Conference: *Rodens et Spatium* on Rodent Biology	Lublin, Poland, July 2004	1) Foraging pattern response of the fat sand rat *Psammomys obesus* to increased ambient temperature (with Alma A.). 2) Comparative ecophysiology between two populations of *Apodemus mystacinus* in northern Israel (with Nir R.)
67)	Royal Society / Biota Colloquium: Adaptations in Desert Fauna and Flora	Victoria West, South Africa, August 2004	Thermoregulatory adaptations of rodents to the desert environment
68)	1st Integrated Meeting on Thermal Physiology and Pharmacology of Thermoregulation	Rhodes, Greece, October 2004	1) The thermoregulatory response of short day acclimated social voles *Microtus socialis* to light interference (with Zubidat A.E.) 2) Daily rhythms of oxygen consumption and 6-sulphatoxy melatonin in the Norwegian lemming *Lemmus lemmus* (with Hohtola E. and Saarela S.) 3) Comparative thermoregulatory daily rhythms on the population level and their response to photoperiod manipulations (with Spiegel M.)
69)	1st International Congress of Applied Chronobiology and Chronomedicine	Antalya, Turkey, June 2005	1) Investigating the link between nightlight pollution and breast cancer: a GIS-assisted analysis (with Kloog I. and Portnov B.A.) 2) The endocrine responses of short day acclimated social voles *Microtus socialis* to light interference (with Zubidat A.E.)
70)	17th Annual Meeting of the Society for Light Treatment and Biological Rhythms	Eindhoven, The Netherlands, July 2005	Light at night – does it only affect seasonality? (with Zubidat A.E.)

71)	IMC 9 – 9th International Mammalogical Congress	Sapporo Hokkaido, Japan, July-August 2005	Light interference – a "knockout" for the thermoregulatory system of winter acclimatized voles
72)	2nd International Meeting on Physiology and Pharmacology of Temperature Regulation	Phoenix, Arizona, U.S.A., March 2006	Body mass is a thermoregulatory adaptation of diurnal rodents to the desert environment (with Alma A. and Neuman A.)
73)	2nd International Meeting on Physiology and Pharmacology of Temperature Regulation	Phoenix, Arizona, U.S.A., March 2006	Body temperature daily rhythms of the fat jird *Meriones crassus*: Effects of beta and alpha adrenergic blockers (with Naaman Y. and Palgi N.)
75)	International Symposium Satellite to ICOH 2006 – Shiftwork and Ageing in Health Care and Community Services	Venezia, Italy, June 2006	1) Artificial light as a risk factor to breast and prostate cancer (with Kloog I. and Portnov B.) 2) Comparing body temperature day rhythms between young and ageing golden mice *Acomys russatus*: The response to propranolol
76)	Rodens & Spatium, 10thInternational Conference	Parma, Italy, July 2006	1) Metabolic and osmoregulatory responses of Wagner's gerbil *Gerbillus dasyurus* from a salt marsh habitat to increasing salinity in their water source (with Davidovitz G.) 2) Reproductive response of desert and mesic species of the Spiny mouse, *Acomys*, to photoperiodic acclimation in Israel (with Wube T.)
77)	3rdInternational Conference on Rodent Biology and Management	Hanoi, Vietnam, September 2006	Using integrated methods for control of vole populations – the alfalfa fields of the Rift Valley in Israel as a model
78)	24th Annual Meeting – Stress in Systems Biology, ESCPB	Antwerpen, Belgium, September 2006	The temporal environment – light at night (LAN) as a stressor (with Zubudat A.E.)
79)	American Physiological Society Intersociety Meeting: Comparative Physiology 2006 – Integrating Diversity	Virginia Beach, Virginia, U.S.A., October 2006	Seasonality of thermoregulatory mechanisms in the Golden squirrel *Sciurus anomalus* (with Adler D. and Gavish L.)
80)	18th Annual Meeting, Society for Light Treatment and Biological Rhythms	July 13-15, 2006 Quebec City, Canada	Light interference and the immune system of Golden spiny mouse *Acomys russatus* acclimated to short photoperiod (with Ashkenazi L. and Fares F.).
81)	Second International Congress of Applied	23-28 March 2007 Gammarth Tunis	Seasonal and Daily Changes of Melatonin Levels in Plants –Does It Play the Role of

	Chronobiology and Chronomedicine		an Antioxidant? (together with Toury, N. and Gepstein, S.)
82)	19th Annual Meeting, Society for Light Treatment and biological Rhythms	June 2007 CopenhagenDenmark	3) Light interference and the response of prothrombin time (PT) in the laboratory rat *Rattus norvegicus* (together with Rav-Hon, N. and Sarig, G.) 4) In vivo response of colon cancer to photoperiod manipulations and melatonin (together with Raz, O. and Fares, F.)
83)	10th African small mammal symposium	20-25 August 2007, Banin	Comparative physiology of thermoregulation in sibling species of the genus *Mastomys* – the response to photoperiod challenges (together with Van Aarde, R. J.)
84)	The Land Economics Research Institute (LEI) of the Dutch Wageningen Agricultural University together with the NRERC	September 2007, Dan Hag	Ecological based management for maintaining Agro ecosystem as an open space in relation to conservation methods.
85)	Collogue de mamalogie la SFEPM	Banyuls Sur Mer, France 27 et 28 October 2007	The effect of light interference on biological rhythms in several rodent species
86)	IX Latin American Symposium of Chronobiology	November 26-30, 2007 Havana University, Havana, Cuba	1) Light pollution and its impact on living organisms 2) The physiology and immune responses of rodents to light interference.
87)	International Conference on Rodent Biology	Myshkin, Russia, 24-28 July 2008	The response of social vole *Microtus socialis* to urine excreted by common spiny mice *Acomys cahirinus*, (together with Steinbach, T.)
88)	Middle Eastern Biodiversity Congress	Intercontinental Aqaba, Jordan, 20-23 October 2008	Eco-physiology studies on the population level in rodents and its contribution to biodiversity
89)	Multinational Graduate Course on Basic Chronobiology With Reference to Chronomedicine	Raipur, Chhattisgarh, India 2-7 November 2008	Light at Night (LAN) and Light Interference (LI) – Seasonality and Seasons out time
90)	The Third International Congress of Applied Chronobiology and Chronomrdicine (ICACC)	Akko, Israel 17-22 May, 2009	Photoperiod Manipulations, MelatoninTreatment

91)	The International theriological10th IMC	Mendoza , Argentina, August 2009	Eco-physiology studies on the population level in rodents and their relevance to speciation (Poster)
92)	X Latin AmericanSymposium on Chronobiology,	Natal, Brazil November 2009	The Possible Impact of Light at Night and Light Interference on Human
93)	11th African small mammalSymposium	Swaziland, July 2011	Reproduction in Desert Adapted Populations of the Genus *Acomys*- The role of Integrative Physiology
94)	American Physiological Society- Comparative Physiology	Westminster, Colorado, US, August, 2010	Light at Night and Comparative Physiology in a Changing World
95)	International Light Association 7th ILA Meeting	Amsterdam, Netherlands September, 2010	Light Pollution and Its Impact, on Human Health
96)	Light Symposium	KTH Stockholm, Sweden, October, 2010	Light Pollution –The Negative Impact of Light at Night
97)	4th International symposium On Integrative Zoology	Kunming, China December 2010	Light at Night as a Global Change, does it Affect Our Lives?
98)	79th International Conference on Light and Vision	San Diego, California April, 2011	Light at Night, Biology of Toxic Light
99)	International Light Association 8th ILA meeting	Quebec, Canada, October, 2011	A Biological Definition for Light pollution
100)	The 4th International Symposium On Physiology & Pharmacology	Buzios, Brazil March, 2012	Body Temperature Daily Rhythms in Diurnal and Nocturnal Rodents– the Response to Illumination Manipulations
101)	Society for Light Treatment and Biological Rhythms SLTBR	Geneva, Switzerland June 2012	Dark Interference and its Impact on Daily rhythms of a Diurnal Rodent the Fat sand Rat *Psammomys obesus* (Poster).
102)	13th Rodent & Spatium	Rovaneimi, Finland, July 2012	The response of daily rhythms to illumination and feeding regimes manipulations of the diurnal fat sand Rat *Psammomys obesus*
103)	21st International Congress of Zoology (ICZ)	Haifa, Israel September 2012	Spectral and Duration Sensitivity to Light-at-Night in 'Blind' and Sighted

			Rodents (with Zubidat A.E.)
104)	The International Society for Chronobiology	Delhi, India October 2012	Light Manipulations as stressors
105)	International Light Designers	Wismar, Germany October 2012	Light at Night (LAN) – Needs for a illumination
106)	Measuring effects of light LAN	Birmingham, UK February 2013	Light at Night (LAN) – Needs for a Environment
107)	11th International Mammalogical	Belfast, NI, UK August 2013	Light at night (LAN) as a new environmental challenge
108)	First international Conference on Artificial Light at Night (ALAN)	Berlin, Germany October 2013	The toxicity of light at night and its human health consequences
109)	11th Conference on Urban health	Manchester, UK March 2014	Artificial light at night in the urban space as a novel health risk
110)	Second International Conference on Artificial Light at Night	Leicester UK October 2014	Biological definition of light pollution – why is it necessary?
111)	Strategies In Light Europe	Munich, Germany October 2014	The necessity for sustainable illumination: bridging the gap between Technology and Environment
112)	1st International Conference on Sustainable Lighting and Light Pollution SLLP2014	Seoul, Korea November 2014	ALAN as a source of pollution the health Consequences attributed to its Exposure
113)	Obesity 2014 OMNICS	San Francesco, CA November 2014	Exposure to Artificial Light at Night (ALAN) – Metabolic responses including diabetes
114)	International Light Association ILA	Tallinn, Estonia April-May 2015	When Dose Light Becomes A Source of Pollution?
115)	7th International Symposium of Integrative Zoology	Xi'an, China August, 2015	Epigenetic Modification in Response to Environmental changes – A new approach to Environmental Studies.
116)	Lumen! Past, present & Future	Sibiu, Romania September 2105	Artificial Light at Night as a health factor – Can the effect of different Illumination sources be measured?
117)	Balkan Light 2015	Athens, Greece September 2015	Energetically Efficient Artificial Light at Night – Consequences of its Effects on our Temporal Environment

118)	Endocrinology 2015 OMICS	Atlanta, Georgia US, November 2015	Artificial Light at Night & Melatonin Production" Possible Impact on Human Health due to Epigenetically Modifications
119)	Strategies in Light Europe	Excel, London, UK November, 2015	Artificial light at Night as a Health Risk Factor – Can the Effect of Different Illuminations Be Measured?
120)	IUBS	Berlin, Germany, December, 2015	Biological Consequences of Global Changes – The Disappearance of Dark Nights
121)	International Festival of Public Health	Manchester, UK July, 2016	Health Consequences Emerging From Exposure to Artificial Light at Night, Trying To Explain the Basic Mechanism Behind it
122)	The 8th International Symposium of Integrative Zoology	Xilinhaote, China, July, 2016	A Novel Global Change Emerging from Chasing Darkness Away – Its Possible Impact on Mammalian and Human Health.
123)	The 4th ALAN meeting	Cluj-Napoca, Romania, September 2016	Energy efficient short wavelength illumination – Can this come on the account of our health risk
124)	The 7th International Conference on the light at night	Krakow, Poland May 2017	Sustainable outdoor illumination for reducing health risk: Use and regulation for artificial Constructed Environment
125)	Lighting for health and Wellbeing Conference	Newport Beach, CA July 2017	Sustainable lighting for health and wellbeing-environment to epigenetics
126)	ISZS 9th International Symposium on integrative Zoology	Xining, China August 2017	Testing the nexus environmental changes hormone secretion, Epigenetic modification and cellular function.
127)	Trends in Lighting	Bregenz, Austria September 2017	Light as the major signal for entraining the biological clock – Exposure to light at night and increasing health risk.
128)	15th Annual ILA Conference	Oslo, Norway May 2018	Light and dark cycles
129	Riding The Lightwave of Technology	Siding Spring Observatory, NSW, Australia September 2018	Energy efficiency lighting – Are they affecting human health?

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7. COLLOQUIUM TALKS AND OTHER INVITED ADDRESSES

The following are some of the invited addresses:

1) "A comparative physiology of thermoregulation in a cold resistant and in a cold sensitive population of the Golden Spiny mouse". Department of Zoology, University of Pretoria, South Africa, April 1978.

2) "The effects of photoperiod and cold acclamation on winter acclimatization of thermoregulatory mechanism". Department of Zoology, University of Marburg, Germany, August 1982.

3) "On the coexistence of two mice species of the genus *Apodemus* in the Mediterranean woodland in the north of Israel". Mammal Research Institute, University of Pretoria, South Africa, August 1986.

4) "The ecological significance of daily rhythms and chemical cues in the coexisting of rodents". Department of Psychology, La Trobe University, Bundoora Campus, Australia, August 1993.

5) "The coexistence of two spiny mice of the genus *Acomys*, in an extreme arid environment". Department of Anatomy and Cell Biology, University of Edmonton, Alberta, Canada, October 1994.

6) "Effects of photoperiod, chemical cues and melatonin on the daily activity and seasonality of thermoregulatory mechanisms in the Golden Spiny mouse". The University of Texas Health Science Centre at San Antonio, October, 1994.

7) "Daily rhythms of activity of the golden spiny mouse: The response to photoperiod and olfactory cues". Faculty of medicine, Sleep Laboratory, Technion, Haifa, January 1995.

8) "Adaptations of thermoregulatory mechanisms to Mesic and Arid environments". Department of Zoology, University of Oulo, Ohlo, Finland, August 1997.

9) Resilience to fire – Mount Carmel Experience, Faculty of Science and Agriculture, University of Kwazulu-Natal, Pietermartizburg South Africa. October 1998.

10) The dark side of illumination, department of Zoology and Entomology, University of Pretoria, Pretoria, August 2007.

11) Searching for the Link between Light at Night and Health, California Lighting Technology Center (CLTC) November 4th, Davis California

8. **SCHOLARSHIPS, AWARDS, RESEARCH GRANTS, ETC.**

1. 1980. Ben-Gurion Foundation "Does *Apodemus mystacinus* astivate?" (IS 15.000).

2. 1990. A grant awarded by the "Ministry for Environmental Affairs" together with colleagues from our Department on "The Recovery of the Forest on Mount Carmel After the Fire of 1989 (NIS 105,000) Second year - IS 90,000. Third year - IS 65,000.

3. 1991. An award by the Research Authority of the University of Haifa: "Entrainment of Daily Rhythms of Activity by Photic and Olfactory Cues in Sympatric mice from the genus *Acomys*".

4. 1992. United States - Israel Binational Science Foundation. Together with Prof. Russel J. Reiter and Prof. **N.** Zisapel, for three years. The Role of Photoperiod and Melatonin in the Acclimation of Circadian Systems of *Acomys russatus*: modulation by an Olfactory Input. ($41,600 for the first year, $47.000 for the second year and $42,000 for the third year).

5. 1993. Joint German Israeli Research Program. Together with others. DM 500,000 for four years. Resilience via Succession of a Semi-Arid Mediterranean Aleppo Pine Forest Ecosystem to Fire on Mt. Carmel, Israel.

6. 1994. The German Israeli Foundation for Scientific research and development (G.I.F.) . Together with Prof. G. Heldmaier, Prof. Zisapel N. and Dr. Dayan T. Seasonal acclimatization of the circadian system in coexisting species of the genus *Acomys*. (DM 300.000 for three years).

7. 1995. A joint grant with Dr. F.M. Rozenfeld. The Valonic Community, Belgium: Field and laboratory studies of the mechanisms involved in the coexistence of four desert rodent species (two years).

8. 1996. A joint grant with Prof. Arad Z., Ecophysiology of the Macedonian mouse, *Mus macedonicus* in post fire habitats. Technion - University of Haifa (one year).

9. 1997-2000. A joint grant with Dr. D. Afik. Comparative chronobiology - A tool for assessing evolutionary Aspects in ecological physiology at the level of rodent population. Israel Academy of Sciences and Humanities. $120,000.

10. A joint grant with Dr. D. Afik. The response of social vole *Microtus socialis* to photoperiod manipulations as a method for population control. Research and Development - Beith-Shean Valley Association. 10,000 NIS.

11. 1999. A joint grant with Prof. D. Gershon. Comparative response between old and young of brown adipose tissue to heat and cold stress - how does the molecular level explains the physiological level. Technion - University of Haifa (one year). $5,000.

12. 1999. Chronobiological control of vole populations. Israeli Ministry of Agriculture. NIS 25,000.

13. 2000-2001. Chronobiology as a tool for rodent pest control. Israeli Ministry of Agriculture. NIS 45,000.

14. 2001-2003. The impact of visitors on habitat, the use of rodent community changes as a bioindicator. KKL - Jewish National Fund. NIS 40,000.

15. 2002-2003. "Ecological Footprints" of Raanana. Israeli Ministry for Environmental Affairs.NIS 84,000.

16. 2005-2009. Comparative physiology of reproduction - The combined effects of photoperiod and water availability on desert and mesic adapted species. ISF. NIS 704,000.

17. 2006-2010. Transfer of light interference and stress response. BSF. 140,000$.

18. 2007- Livable Cities. Canadian Studies. 4,000$.

19. 2009 – 2013 Acclimation to photoperiod and heat ISF 960,000 NIS

20. 2011- 2012 Melatonin in cow morning milk, 40,000 NIS

21. 2013 – 2016 COST, LoNNe, Lost of the night network, 450,000 Euro.Vice-chair of the group.

22. 2013 – 2015 The metabolic response of calves to light at night manipulations, Ministry of Agriculture, 200,000 NIS

23. 2014 – 2016 IEC, Developing a sustainable bulb 660,000 NIS.

See also Research Visits to Overseas Laboratories, Grants obtained together with colleagues.

Research grants from Industrial for solving problems or preparing files for patent registration (As: Netafim, Tel Dor).

9. **TEACHING**

A. Courses taught in recent years:

Title	**Year**	**Type**	**Level**
Vertebrate Zoology	2	lecture + lab	B.Sc.
Animal Physiology	3	lecture + lab	B.Sc.
Introduction to the Vertebrate Fauna of Israel	3 + 4 elective	lecture + lab + field trips	B.Sc.
Photoperiod and Biological Rhythms	3 + 4 elective	lecture + project	B.Sc.

Biological Clocks	elective		M.Sc.
Environmental Physilogy	3 + 4 elective	lecture + project	B.Sc.
Organismal evolution	Obligatory	lecture	M.Sc.
Environmental Endocrinology	elective	lecture + seminar	M.Sc.
Environmental Challenges and Physiological Solutions	elective	Lecture + seminar	M.Sc.
Ecology and Environmental For non-biologists.	obligatory	lecture	M.A.
Light Pollution	elective	lecture+Seminar	

B. <u>Supervision of graduate students (M.Sc. and M.A.) in recent years</u>:

Department of Evolutionary & Environmental Biology – 20 students

Department of Natural Resources & Environmental Management – 40 students

Department of Neurobiology and Ethology – 2 students

Department of Human Biology –12 students

Supervision was together with colleagues

C. <u>Supervision of Ph.D. students</u>:

<u>Student's Name</u>	**<u>Title of Thesis</u>/ Dissertation**	**<u>Degree</u>**	**<u>Date</u>**	**<u>Forum ofPublication</u>**
Arie Rosenfeld	Response of a Small Mammal Community to Cattle Grazing in Different Habitats of the Mediterranean Ecosystem in Ramat Hanadiv Park, (Supervised jointly with Prof. Avi Perevolotsky)	Ph.D.	2000-2003	Graduate Studies Authority
Ora Brandes	The Effects of Photoperiod and Food Intake on Reproductive System of Social Vole *Micrtus socialis* (Supervised jointly with Prof. Eddy Karnieli)	Ph.D.	2000-2004	Graduate Studies Authority
Tilaye Wube	Increase in Water Salinity and Decrease in Food Availability as Possible Proximal Cues in the	Ph.D.	2005-2009	Department of Evolutionary &

	Reproductive Timing of Desert Populations of the Genus *Acomys* – A Comparative Study (Supervised jointly with Dr. Fuad Fares)			Environmental Biology
Etai Kloog	Studying the Association between Exposure to Light at Night (LAN) and the Prevalence of Hormone-Dependent Cancers (Supervised jointly with Prof. Boris Portnov)	Ph.D.	2005-2010	Department of Natural Resources & Environmental Management
Dan Gottlieb	Collaborative Management and Quality of the Environment: The Relationship between the Ecological Footprint, Civic Participation and Green Values in the Local Administrative Level (Supervised jointly with Prof. Eran Vigoda-Gadot)	Ph.D.	2005-2014	School of Political Sciences
Ashkenazi Lilach	Light Interference (LI) as a Stressor: The Influence of LI on Daily Rhythms of Physiological, Neuro-endocrine and Immune Variables of Golden Spiny Mouse *Acomys russatus*	Ph.D.	2007-2013	Department of Evolutionary & Environmental Biology
Zubidat Abd el Salam	Light-at-Night as a Stress Signal in Rodents: Transduction Pathway, Physiology, Neuroendocrine, and Molecular Bases (Supervised jointly with Prof. Randy Nelson)	Ph.D.	2006-2011	Department of Evolutionary & Environmental Biology
Dvorkin Elena	Reproduction in desert adapted rodents water and food availability as environmental ultimate signals.	Ph.D.	2007-2012	Department of Evolutionary& Environmental Biology
Keshet-Siton Atalya	Exposure to Light at Night and Breast Cancer In Women From Urban and Rural Areas. (together with Dr. Keren Or Chen)	Ph.D.	2008-2016	Department of Natural Resources and Environmental Management
Asher Aviv	Comparative Daily Rhythms of Heart Rate, Activity and Milk Melatonin Concentrations in Cows Exposed to Light at Night. (Together with Prof. Arei Brosh).	Ph.D.	2010-2016	Department of Evolutionary& Environmental Biology
Rybnikova, Natalia	Using Light at Night (LAN) for Identifying Urban, Industrial and Commercial clusters. (Together with Prof. Boris Portnov)	Ph.D.	2014-2018	Natural Resources & Environmental Management
Amit Shai Green	The response of sleep quality, physiological And cognitive responses to computer screen Exposure, effects of wavelength and intensity (Together with Prof. Yaron Dagan)	Ph.D.	2013-2018	Graduate Studies Authority
Iris Gavish		Ph.D.	2014-2019	Natural Resources & Environmental

	Information Effects on Sustainable Consumption Habits (Together with Prof. Doron Kliger)			Management
Itay Malek	Effects of bright light at night on growth performance, reproductive success, feeding behavior, and disease tolerance in Australian Budgerigars (*Melopsittacus undulatus*): association with melatonin and stress responses (Together with Prof. Ido Izhaki)	Ph.D.	2017-2020	Graduate Studies Authority

Post Doctorate Researchers

1. Dr. Van Arede.R.J (1992)
2. Dr. Uri Shamas (1998 – 2000)
3. Dr. Michael D.Scamleburg (1998 – 1999), (2000 – 2001)
4. Dr. Orna Harel (2004 – 2006)
5. Dr. Hagit Schwimmer (2008 – 2010)
6. Dr. Ofir Tal (2014 - 2015)
7. Dr. Boyano Sinam (2014 - 2016)

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10. **MISCELLANEOUS**

Nominated for inclusion in "Who's Who in the World", 14th Edition - 1997.

Participation in the meetings of the Israel Zoological Society, Israel Physiology and Pharmacology, The Zoological Society of Southern Africa.

1998 – present: , Member of the committee for promotion to Senior lecturer A, of academic staff in Educational Colleges, Ministry of Education (also chair for the natural sciences staff).

Member in the following societies:

- Israel Physiology and Pharmacological Society
- The Zoological Society of Israel.

- The Zoological Society of Southern Africa
- Israel Society for Ecology and Environmental Quality Sciences
- The European Society for Comparative Physiology and Biochemistry.
- The International Society of Chronobiology.
- Society of Light Treatment and Biological Rhythms.
- Artificial Light at Night
- International Light Association
- International Zoological Society (vise president)
-Israel Light Association (vise president)
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II. PUBLICATIONS

A.

1) **M.Sc. Dissertation**
The Distribution of Myomorph Rodents in the Sinai Peninsula.
Department of Zoology, The Hebrew University of Jerusalem.
Advisor: Prof. E. Tchernov.

The Thesis was published in one paper (No. C.1 in my list of publication) and one abstract (No. F.2).

2) **Ph.D. DISSERTATION**
Comparative Physiology of thermoregulation in two populations of the spiny mouse (*Acomys russatus*).
Department of Zoology, The Hebrew University of Jerusalem. Advisor: Prof. A. Borut.

The thesis was published in four papers (No. C.2, 11, E.1and C.40) and four abstracts (F.1,F.3, F.4 and F.5).

B. BOOKS:

AUTHORED BOOKS: Light Pollution as a New Risk Factor for Human Breast and Prostate Factor, Springer June 2013 (Together with Prof. Boris A. Portnov).

C. ARTICLES IN REFEREED JOURNALS

PUBLISHED

1. **Haim, A.** and E. Tchernov (1974). The distribution of myomorph rodents in the Sinai peninsula. Mammalia 38: 201-223.

2. **Haim, A**. and A. Borut (1975). Size and activity of a cold resistant population of the golden spiny mouse (*Acomys russatus*:muridae). Mammalia 39: 605-612.

3. Ritte, U., **A. Haim** and E. Neufeld (1976). The use of electrophoretic patterns of hemoglobin for the identification of Israeli gerbils (genus *Gerbillus*, Rodentia Gerbillinae) . Israel Journal of zoology 25: 52-60.

4. **Haim, A**., S. Saarela and R. Hissa (1979). Photoperiodicity and the thermoregulatory response to noradrenaline in the pigeon. Journal of Thermal Biology 4: 167-171.

5. **Haim, A.,**S. Saarela and R. Hissa (1979). Heat production induced by photoperiodicity in the pigeon. Comparative Biochemistry and Physiology 63A: 647-649.

6. **Haim, A.** and F. le R. Fourie (1980). Heat production in nocturnal (*Praomys natalensis*) and diurnal (*Rhabdomys pumilio*) South African murids. South African Journal of Zoology 15: 91-94.

7. **Haim, A.** and F. le R. Fourie (1980). Long scotophase increases heat production in *Rhabdomys pumilio* and *Praomys natalensis* (Rodentia). South African Journal of Science 76: 89.

8. **Haim, A.** and F. le R. Fourie (1980). Heat production in cold and long scotophase acclimated and winter acclimatized rodents. International Journal of Biometeorology 24: 231-235.

9. Fourie, F. le R. and **A. Haim** (1980). Enzymatic activity of rodents acclimated to cold and long scotophase. International Journal of Biometeorology 24: 237-241.

10. **Haim, A.** (1981). Heat production and dissipation in a South African diurnal murid *Lemniscomys griselda*. South African Journal of Zoology 16: 67-70.

11. **Haim, A**. and A. Borut (1981). Heat production and dissipation in golden spiny mice *Acomys russatus* from two extreme habitats. Journal of Comparative Physiology B. 142: 445-450.

12. Saarela, S., E. Hohtola, **A. Haim** and 0. Vakkri (1981). Involvement of tissue monamine and plasma FFA concentrations in response of the pigeon to changes of photoperiod. Experientia 37: 1085-1086.

13. **Haim, A.** (1982). Effects of long scotophase and cold acclamation on heat production in two diurnal rodents. Journal of Comparative Physiology B148: 77-8l.

14. **Haim, A.** and F. le R. Fourie (1982). Effects of melatonin on heat production and enzymatic activity in diurnal and in nocturnal rodents. comparative Biochemistry and Physiology 71A: 473-475.

15. **Haim, A**. and S. Yahav (1982). Non-shivering thermogenesis in winter acclimatized and in long scotophase and cold acclimated *Apodemus mystacinus* (Rhodentia). Journal of Thermal Biology 7: 193-195.

16. Yahav, S., **A. Haim** and A. Shkolnik (1982). Thermoregulation and activity in *Apodemus mystacinus* (Mammalia: Muridae) on Mount Carmel. Israel Journal of Zoology 31: 157-158.

17. **Haim, A.,** R. Ashkenazi and A. Kalir (1983). Long scotophase acclamation increases free urinary catecholamine content in the rat. Comparative Biochemistry and Physiology 74C: 323-324.

18. **Haim, A.,** G. Heth, A. Pratt and E. Nevo (1983). Photoperiodic effects in thermoregulation in a "blind" subterranean mammal. Journal of Experimental Biology 107, 59-64.

19. **Haim, A.,** G. Heth, Z. Avnon and E. Nevo (1984). Adaptive physiological variation in non-shivering thermogenesis and its significance in speciation. Journal of Comparative Physiology B. 154: 145-147.

20. **Haim, A.** (1984). Adaptive variations in Heat production within Gerbils (genus *Gerbillus*) from different habitats. Oecologia. 61: 49-52.

21. **Haim, A**., B. Nicolaisen and N.A. Oritsland (1984). Crude oil - its impact on the rats heat balance. Comparative Biochemistry and Physiology 78A: 259-261.

22. Pevet, P., G. Heth, **A. Haim** and E. Nevo (1984). Photoperiod perception in the blind mole rat (*Spalax ehrenbergi*), Nehring; Involvement of the harderian gland, atrophied eyes, and melatonin. Journal of Experimental Zoology 232: 41-50.

23. **Haim, A.,** N. Gruner., G. Heth., T. Goldstein, and E. Nevo (1985). Urine Analysis of three rodent species with Emphasis on Calcium and Magnesium Bicarbonate. Comparative Biochemistry and Physiology 80A:503-506.

24. **Haim, A.**, N. Fairall, and P.W. Prinsloo (1985). The ecophysiological significance of calcium bicarbonate in the urine of subterranean rodents: Testing a hypothesis. Comparative Biochemistry and Physiology 82A: 867-865.

25. **Haim, A**. and N. Fairall (1986). Geographical variation in heat production and dissipation within two populations of *Rhabdomys pumilio* (Muridae). Comparative Biochemistry and Physiology 84A: 111-112.

26. **Haim, A.** and A. Borut (1986). Reduced heat production in the bushy tailed gerbil *Sekeetamys calurus* as an adaptation to arid environments. Mammalia 50: 27-33.

27. **Haim, A**. and A. Kalir (1986). Enzymatic activity in crude oil contaminated rats. Comparative Biochemistry and Physiology 85C: 103-105.

28. Robinson, T.J., J.D. Skinner and **Haim, A.** (1986). Close chromosomal congruence in two species of ground squirrel: *Xerus inauris* and *X. princeips* (Rodentia: Sciuridae) . South African Journal of Zoology 21:100-105.

29. **Haim, A.,** J.D. Skinner and T.J. Robinson (1987). Bioenergetics thermoregulation and urine analysis of squirrels from the genus *Xerus* from an arid environment. South African Journal of Zoology 22: 45-49.

30. **Haim, A**. and N. Fairall (1987). Bioenergetics of a herbivorous rodent *Otomus irroratus* (Brants, 1927). Physiological Zoology 60: 305-309.

31. **Haim, A.** (1987). Thermoregulation and metabolism of Wagner's gerbil (*Gerbillus dasyurus*): A rock dwelling rodent adapted to arid and mesic environments. Journal of Thermal Biology 12: 45-48.

32. **Haim, A.** (1987).Metabolism and thermoregulation in rodents: are these adaptations to habitat and food quality? South African Journal of Science 83: 639-642.

33. **Haim, A.,** E. Van Der Straeten and W.M. Cooreman (1987). Urine analysis of European moles *Talpa europaea* and white rats *Rattus norvegicus* kept on a carnivore's diet. Comparative Biochemistry and Physiology 88A: 179-181.

34. **Haim, A.,** G.T.H. Ellison and J.D. Skinner (1988). Thermoregulatory circadian rhythms in the pouched mouse (*Saccostomus campestris*). Comparative Biochemistry and Physiology 91A: 123-127.

35. **Haim, A.,** R.J. Van Aarde and J.D. Skinner (1990). Metabolism and thermoregulation in the Cape porcupine *Hystrix africaeaustralis*. Physiological Zoology 63: 795-802.

36. **Haim, A.,** R.J. van Aarde and J.D. Skinner (1990). Metabolic rates, food consumption and thermoregulation in seasonal acclimatization of the Cape porcupine *Hystrix africaeaustralis*. Oecologia. 83: 197-200.

37. **Haim, A**. and G. Levi (1990). Photoperiod induced circadian rhythms and heat production in *Meriones crassus* - the role of body temperature in seasonal acclimatization. Journal of Experimental Zoology 256: 237-241.

38. **Haim, A**., P.A. Racey, J.R. Speakman, G.T.H. Ellison and J.D. Skinner. (1991). Seasonal acclimatization and thermoregulation in the pouched mouse *Saccostamus campestris*. Journal of Thermal Biology 16: 13-17.

39. **Haim, A.** and I.D. Skinner. (1991). A comparative study of metabolic rates and thermoregulation of two African antilopes - the Steenbok *Raphicerus campestris* and the Blue Duiker *Cephalophus monticola*. Journal of Thermal Biology 16: 145-148.

40. **Haim, A.** (1991). Behavior patterns of a cold resistant population of the golden spiny mouse *Acomys russatus*. Physiology and Behavior 50: 641-643.

41. Rubal, A., I. Choshniak and **Haim, A.** (1992). Daily rhythms of metabolic rate and body temperature of two murids from extremely different habitats. Chronobiology International 9: 341-349.

42. **Haim, A.,** R.J. Van Aarde and J.D. Skinner. (1992). Burrowing and huddling in newborn porcupine: The effect on thermoregulation. Physiology and Behavior 52: 247-250.

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H. **OTHER WORKS AND ACTIVITIES CONNECTED WITH YOUR SCHOLARLY FIELD**

1992 Guest Editor Israel Journal of Zoology, vol. 38, Nos. 3-4. "Ecology and Taxonomy of Small African Mammals".

1994 Guest Editor Israel Journal of Zoology, vol. 40, No. 2. "*Acomys*: Ecology, Physiology and Systematics".

1996 Guest Editor Israel Journal of Zoology, vol. 42, No. 4. "Biodiversity and Zoological Variations", together with Prof. U. Ritte.

1996 Guest Editor Ecology and Environment, Vol. 3 (1-2) together with Dr. A. Perevolotsky and Dr. G. Ne'eman.

1998 Guest Editor International Journal of Wildland Fire 7(4) together with Dr. G. Ne'eman.

2003 Guest Editor Israel Journal of Zoology, vol. 49, Nos. 2-3. "Aspects of Avian Biology", together with Prof. Z. Arad.

2004 Guest Editor Journal of Thermal Biology, vol. 29, Nos. 7-8. Special Issue: International Thermal Physiology Symposium, together with Prof. M. Horowitz.

2009 Editorial Board: Integrative Zoology, Chronobiology International.

2011 Editorial board: Journal of Basic & Clinical Physiology & Pharmacology

I. ARTICLES, BOOKS OR OTHER WORKS SUBMITTED FOR PUBLICATION

J. ADDITIONAL COMMENTS AND INFORMATION ON YOUR SCIENTIFIC ACTIVITY AND RESEARCH PLANS

Present Research

1. Thermoregulation mechanisms and the effect of photoperiod changes on them.
2. Activity and dynamics of rodent populations in Israel.
3. Heat production and bioenergetics in different species of the family Gerbillidae from different geographical regions and different habitats.
4. Catecholamines, enzymatic activity and heat production in rodents acclimated to long and short scotophase.
5. Circadian rhythms of body temperature, activity and nonshivering thermogenesis metabolic rates, the response to changes in photoperiod and ambient temperatures.
6. Seasonal acclimatization in rodents.
7. Adaptations of rodents to photoperiod regimes (geographical latitudes).
8. Non-photic cues as zietgebers in entrainment of circadian rhythms.
9. Evolutionary physiology in rodents.

10. Rodent populations in a woodland recovering from fire.

11. Regulation of activity of alpha and β blocker in rodents species.

12. Light at night and light interference – their negative impact on human health.

13. Vertebrate pest control by light interference and natural repellents.

14. Ecological footprints as a tool for assessing urban and tourist environmental effects.

15. Negative health effects of exposure to short wavelength artificial light at night (ALAN).

Developing curricula for the following courses:

a) A Seminar Course in Body Thermoregulation - Everyman's University.

b) Honours Course in Bioenergetics and Thermoregulation - at the mammal Research Institute, University of Pretoria, South-Africa.

c) Rhythms and Photoperiod Response in Animals - Biological Clocks; Oranim - University of Haifa.

d) Selected Chapters in Theriology - Oranim, University of Haifa.

e) M.A. program in: Natural Resources and Environmental Management, University of Haifa.

f) M.Sc. program in : Evolutionary and Environmental Biology, University of Haifa

g) Light pollution to M.A. students