

ACTIVITY IN ISRAEL

COST 850



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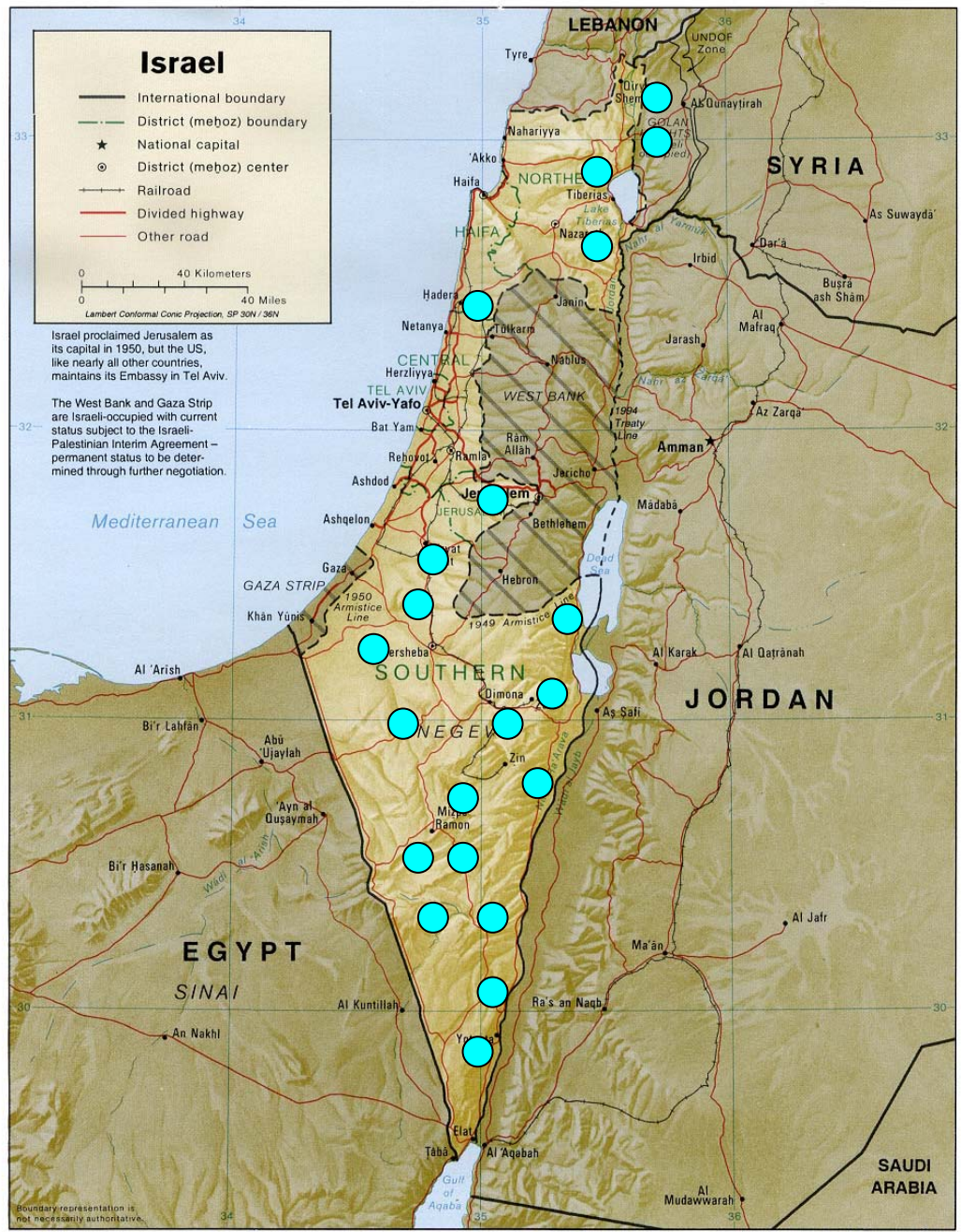
Volcani Center,

Bet Dagan, ISREAL

EPN Ecology and distribution



Conducting surveys in diverse locations and climatic zones in Israel



Characterization of new populations

Genera	Strains/ Location	Location Characteristics	Date Found	Desic. Room	Desiccators	Heat tolerance	Motility in Column	Invasion rate	Infec. Tene brio	Reprod. Potential	Avera ge
Steinernematids	SFG*	Lab reference	--	6	4	4	4	5	6	5	4.3
	Holit	Lemon orchard	11.6.04	4	5	6	4	4	7	2	4.0
	Besor	Avocado orchard	11.6.04	3	6	4	3	6	7	4	4.1
	Susia	Pasture	5.3.04	4	6	5	4	6	9	10	5.5
	Nir Itzhak	Medow	18.3.04	4	5	6	6	5	10	6	5.3
	Zeelim	Mango	18.3.04	4	5	5	5	3	7	5	4.3
	Zeelim	Citrus orchard	9.6.04	3	5	5	4	8	7	5	4.6
	Nahal Akrab	Bushes	24.7.04	6	8	9	5	5	9	7	6.1
Heterorhabditids	HP*	Lab reference	--	2	2	4	4	2	3	5	2.8
	Besor Hb	Avocado orchard	11.2.04	4	4	8	3	4	7	6	4.5
	Devora	Olive trees	5.7.04	7	6	8	5	4	8	7	5.6
	Grofit	Palm trees	20.7.04	3	5	9	5	5	9	4	5.0
	Pardes Hana	Citrus orchard	25.8.04	3	4	6	8	4	4	6	4.4
	Mishmeret	Citrus orchard	25.8.04	3	4	6	6	5	6	6	4.5
	Kfar Hess	Citrus orchard	25.8.04	3	4	6	5	7	7	6	4.8
	Nahal Akrab	Bushes	24.7.04	3	4	9	4	5	10	7	5.3

Application against Pests

Ticks

- Samish, M., Alekseev, E. and **Glazer, I.**, 2001. Entomopathogenic nematodes for the biocontrol of ticks. *Trends in Parasitology* 17: 368-371.
- **Glazer, I.**, Alekseev, E. and Samish, M. 2001. Factors affecting the virulence of entomopathogenic nematodes to engorged female *Boophilus annulatus* ticks *J. Parasitol.*: 808-812.
- Samish, M., Alekseev, E. and **Glazer, I.**, 2001. Entomopathogenic nematodes for the biocontrol of ticks. *Trends in Parasitology* 17: 368-371.
- Samish, M., Ginsberg, H. and **Glazer, I.** 2005. Biological control of ticks. *Parasitology* 129: S389-S403
- Alekseev, E., **Glazer, I.**, and Samish, M. 2005. Effect of soil texture and moisture on the activity of entomopathogenic nematodes against female *Boophilus annulatus* ticks. *Biocontrol (Accepted)*

Application against Pests

Sap Beetles (*Carpophilus*) - Date Orchards

Main species of nitidulids in date and other fruit plantations



E. luteola



C. mutilatus



C. hemipterus



U. humeralis



Application against Pests

The Pine Processionary Moths (PPM)
Thaumetopoea wilkinsoni



EPN stress tolerance and survival

- Liu Q-Z, Piggott S. J, Solomon, A. and **Glazer, I.** 2002. Physiological and Biochemical Changes in Nematodes from the Genus *Heterorhabditis* Following Desiccation. *Phytoparasitica* 30: 253-261.
- Piggott, J. S., Qhi-Zhi, L., **Glazer, I.** and Wright, D. J. 2002. Does osmoregulatory behaviour in *entomopathogenic nematodes* predispose desiccation tolerance? *Nematology* 4: 483-488.
- Chen, S. and **Glazer, I.** 2004. The Effect of Direct and Gradual Increase Osmotic Pressure to Survival of Entomopathogenic Nematodes. *Phytoparasitica* 32:486-497.
- Chen, S. and **Glazer, I.** 2004. A novel method for long-term storage of the entomopathogenic nematode *Steinernema feltiae* at room temperature. *Bio. Cont.* 32: 104-110

Molecular Biology and Genetics

- Zitman-Gal, T., Glazer, I. and Koltai, H. 2004. A LEA3 family member is involved in survival of *C. elegans* during exposure to dehydration stress. *FEBS Letters*, 577: 21-26.
- Zitman-Gal T., Glazer I., Sherman A. and Koltai H. 2004. Protein interaction of Nucleosome Assembly Protein-1 and Casein Kinase 2 during desiccation response in the insect-killing nematode *S. feltiae* IS-6. *J. Parasitol.* 90: (In press).
- Zitmann-Gal , T., Glazer, I. and Koltai, H. 2005. Stressed worms: Responding to the post genomic era. *Molecular Biochemical Parasitology* 143: 1-5.
- Chen S., Gallop N. and Glazer. I. 2005. Cross stress tolerance and expression of stress-related proteins in osmotically desiccated entomopathogenic nematode *S. feltiae* IS-6. *Parasitology* (Accepted)
- Chen S., Glazer, I., Gollop, N., Cash, P., Argo, E., Innes, A., Stewart, E., Davidson, I., Wilson, M. J. 2005. Proteomic Analysis of the Entomopathogenic Nematode *Steinernema feltiae* IS-6 IJs under Evaporative and Osmotic Stresses. *Molecular Biochemical Parasitology* (in press).

Participation in COST 850 Meetings and Activities

- 2001- Wageningen
- 2004- Aberdin, Helsinki
- 2004-2005- I. Glazer spent his sabbatical at
D. Clarke and R. Ehlers labs.
- 2005- Kiel, Czech Republic, Crete, Bari
- STSM- 2005- Dr. Sb Chen to Aberdin
Scotland

People Involved in COST 850 in Israel

- Prof. Daniel Segal
- Dr. Itamar Glazer
- Dr. Hinanit Koltai
- Dr. Song-be Chen
- Dr. vishal somvanshi
- Ms. Anat Moshayov
- Ms. Nona Meqaya
- Ms. Mariam Chubinishvili