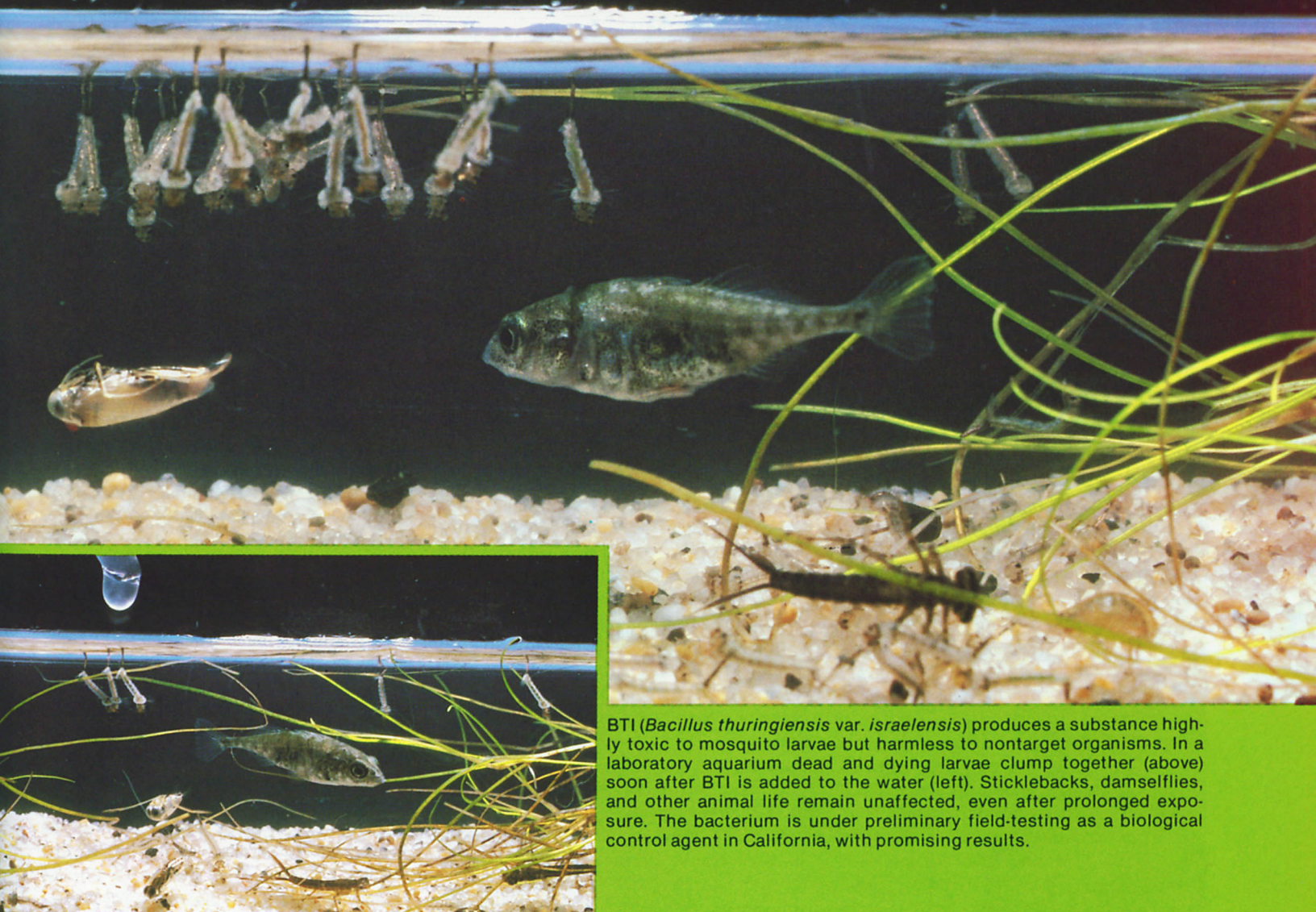


Biological control and genetics



BTI (*Bacillus thuringiensis* var. *israelensis*) produces a substance highly toxic to mosquito larvae but harmless to nontarget organisms. In a laboratory aquarium dead and dying larvae clump together (above) soon after BTI is added to the water (left). Sticklebacks, damselflies, and other animal life remain unaffected, even after prolonged exposure. The bacterium is under preliminary field-testing as a biological control agent in California, with promising results.

Control of mosquitoes through exploitation of their natural enemies to suppress them has been given high priority in California for many years. More studies have been approved and more funds expended on biological controls than on any other research category. Investigations have been pursued on a broad range of bioagents—mosquito predator fish, aquatic insects, fungal and bacterial pathogens, and nematode parasites. Bacillus thuringiensis var. israelensis (BTI) is an exciting new bioagent under study and has prospects of becoming an important adjunct to biological control.