

Integrated Mosquito Management

Massachusetts



The Development of Mosquito Control

- ♦ The Mechanical Era 1900-1942
- ♦ The Chemical Era 1940 – 1970
- ♦ The Integrated Mosquito Management Era 1972 thru present

Gordon Peterson

Insects 2016, 7, 56

JOHN SMITH



Mechanical Mosquito Control



Chemical Mosquito Control

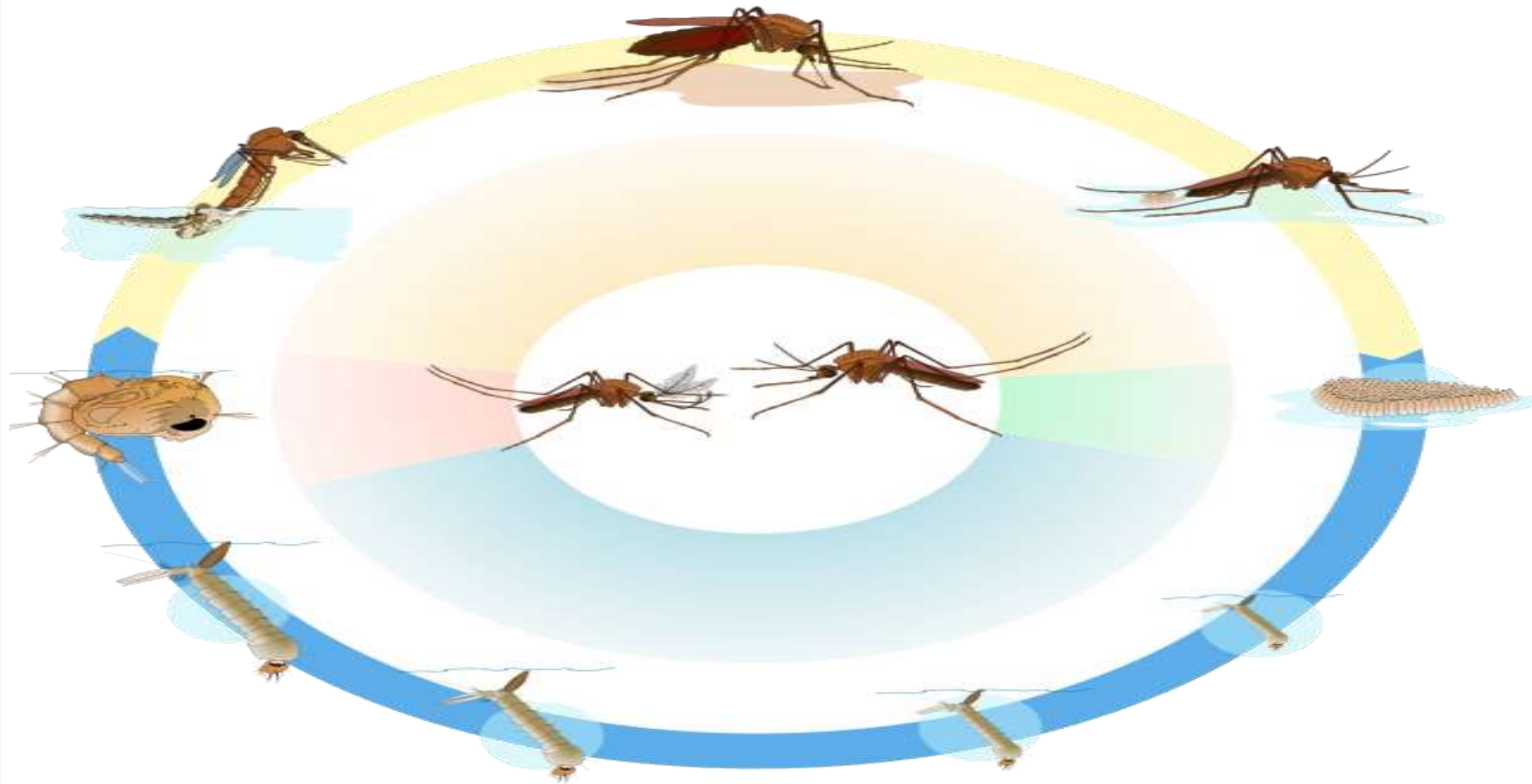


Integrated Mosquito Management

- ◆ Knowledge Based
- ◆ Surveillance Driven
- ◆ Resource Limited



Mosquito Biology

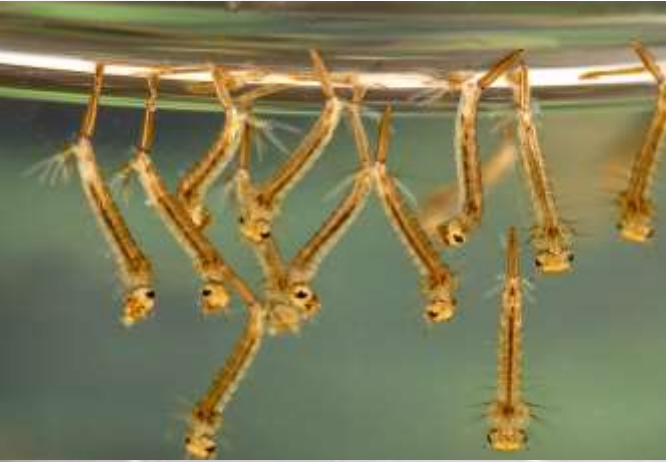


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Surveillance



Resources



REGULATION OF MOSQUITO CONTROL METHODS AND MATERIALS

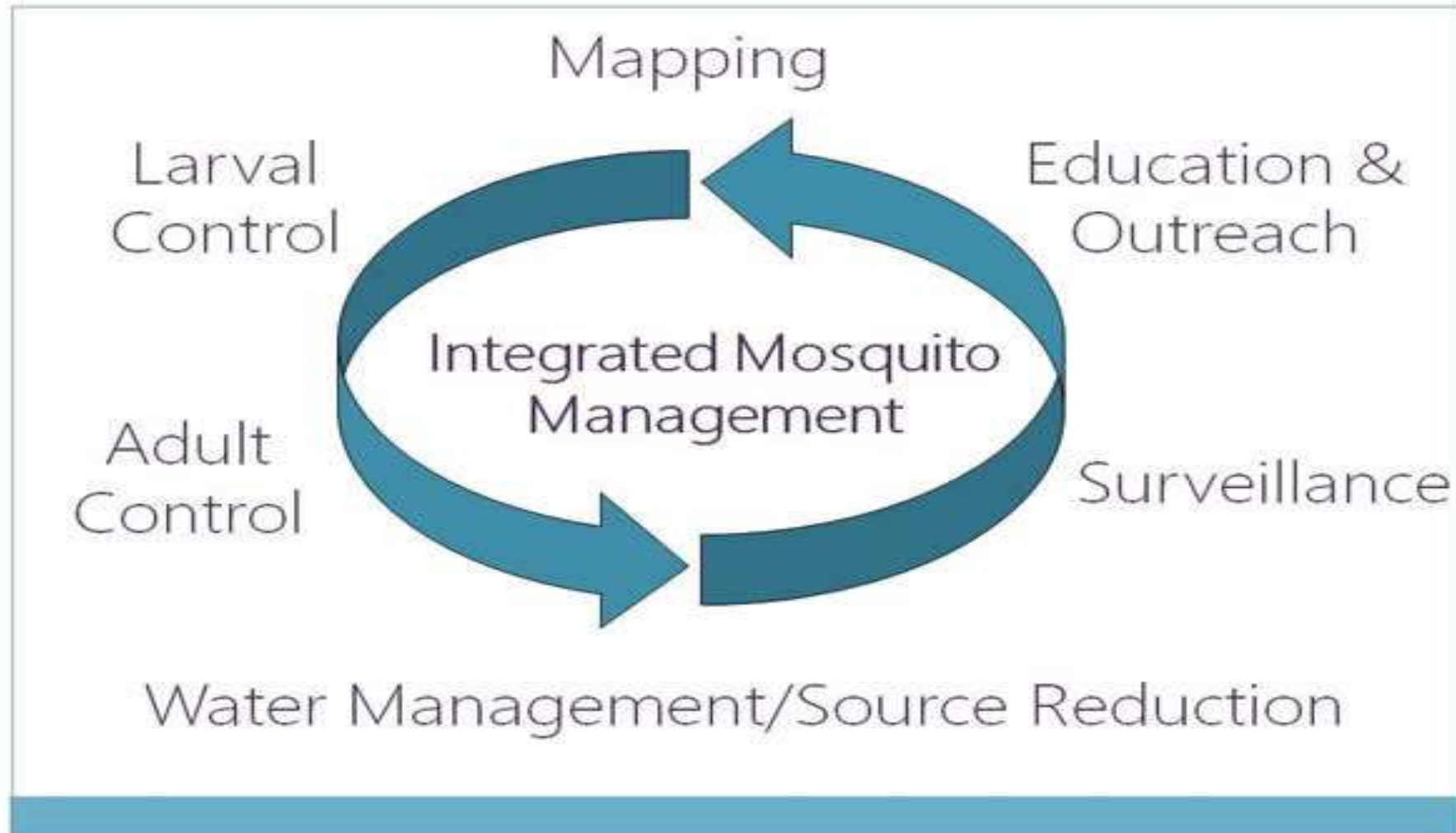


The Environmental Impact of Mosquito Control Practices

- Generic Environmental Impact Review
- Massachusetts Environmental Policy Act Review

The intent of the GEIR was to gather, in single document information on methods of mosquito control and eradication in Massachusetts, and the environmental impacts of those methods.

Integrated Mosquito Management





GIS Mapping

- Records wide Range of Data
- Efficient Reporting

LARVAL CONTROL

Advantages

- Focused Treatment
- Good Efficacy

Limitations

- Labor Intensive
- Time Sensitive



ADULT CONTROL

Advantages

- Scalable
- Responsive
- Short Term Impacts

Limitations

- Weather Dependent
- Short Term Impacts
- Public Perception



WATER MANAGEMENT

Advantages

- Semi Permanent
- Focused Treatment
- Good Efficacy
- Multiple Benefits

Limitations

- Labor Intensive
- Weather Dependent



SOURCE REDUCTION

Advantages

- Semi Permanent
- Focused Treatment
- Good Efficacy
- Community Engagement

Limitations

- Labor Intensive



Surveillance

Advantages

- Scalable
- Responsive
- Multiple Benefits
- Community Engagement

Limitations

- No Efficacy
- Labor Intensive



OUTREACH AND EDUCATION

Advantages

- Scalable
- Permanent
- Responsive
- Multiple Benefits
- Community Engagement

Limitations

- Labor Intensive
- Efficacy



HOW MOSQUITO CONTROL IS ORGANIZED IN MASSACHUSETTS

Enabling Legislation

State Reclamation and Mosquito Control Board

- Massachusetts Department of Agricultural Resources
- Massachusetts Department of Environmental Protection
- Massachusetts Department of Conservation and Recreation

10 Local Mosquito Control Districts

- District Commission

Member Towns

- Board of Selectmen, Town/ City Council
- Local Health Department

HOW MOSQUITO CONTROL IS FUNDED IN MASSACHUSETTS



HOW TO JOIN A MOSQUITO CONTROL DISTRICT

- Contact mosquito control director/superintendent or Commission for information
- Establish the petition
- Vote through town meeting or municipal mechanism
- Submit the vote to SRMCB for approval
- Contact Senators/Representative and Department of Revenue to establish funding



COMMUNITY ENGAGEMENT

- Establish relationships
- Develop framework for success
- Secure resources
- Advance objectives



COMPREHENSIVE MOSQUITO CONTROL PLAN

- Establish Priorities
- Routine Protocols
- Response plans



“Control of arbovirus is vector control.”

Dr. Jean-Paul Mutebi, CDC

