



## **BOARD MEETING NOTICE AND AGENDA**

July 17, 2019  
8:00 A.M.

Department of Consumer Affairs  
Hearing Room  
2005 Evergreen Street  
Sacramento, CA 95815

Contact Person: Susan Saylor  
916-561-8700

### **REVISED AGENDA**

- I. Roll Call / Establishment of Quorum
- II. Flag Salute / Pledge of Allegiance
- III. Public Comment for Items Not on the Agenda  
*The Board may not discuss or take action on any matter raised during this public comment section that is not included on this agenda, except to decide whether to place the matter on the agenda of a future meeting. [Government Code Sections 11125, 11125.7(a)]*
- IV. Petition for Reinstatement  
Juan Christian Flores – FR 37996 – Branch 1
- V. Petition for Reinstatement  
Alonzo G. Contreras III – OPR 11760 – Branch 3
- VI. Closed Session - Pursuant to Subdivision (c)(3) of Section 11126 of the Government Code the Board Will Meet in Closed Session to Consider Reinstatements, Proposed Disciplinary Actions, and Stipulated Settlements

### **Reconvene in Open Session**

- VII. Review and Approval of Minutes of the April 17, 2019 and May 29, 2019 Board Meetings
- VIII. Discussion and Possible Action on Occupational Analysis for Applicators
- IX. Executive Officer's Report
  - a. Licensing, Enforcement, Examination and WDO Statistics
  - b. Survey Results
  - c. Examination Development

- X. Update on the Status of the Research Proposals Selected for Funding at the July 26, 2018 Board Meeting
- XI. Presentation and Possible Action on Proposed Amendment of Key Personnel to Dr. Neil Tsutsui's Approved Research Project - "Diet and Colony Structure of Two Emerging Invasive Pest Ants"
- XII. Presentation and Possible Action on Proposed Amendment of Key Personnel to Dr. Dong-Hwan Choe's Approved Research Project - "Improving Urban Ant Pest Management by Low Impact IPM Strategies"
- XIII. Regulations Discussion, Possible Action, and Update:
  - a. California Code of Regulations (CCR), Title 16, sections 1970.4, 1970.41, and 1970.42 – Pesticide Disclosures Requirements
  - b. CCR, Title 16, section 1950 – Continuing Education
  - c. CCR, Title 16, section 1997 – WDO Inspection and Completion Activity Fee (Emergency Regulations)
  - d. CCR, Title 16, sections 1936, 1936.1, 1936.2, 1937.1, 1937.2 – AB 2138 Compliance
- XIV. Legislation Update and Possible Action
  - a. Assembly Bill 613 (Low) – Professions and Vocations: Regulatory Fees
  - b. Assembly Bill 1788 (Bloom) – Pesticides: Use of Anticoagulants
  - c. Senate Bill 53 (Wilk) – Open Meetings
- XV. Future Agenda Items
- XVI. Board Calendar
- XVII. Adjournment

The meeting may be cancelled or changed without notice. For verification, please check the Board's website at [www.pestboard.ca.gov](http://www.pestboard.ca.gov) or call 916-561-8700. Action may be taken on any item on the agenda. Any item may be taken out of order to accommodate speakers and/or to maintain a quorum. All times indicated are approximate. Meetings of the Structural Pest Control Board are open to the public except when specifically noticed otherwise in accordance with the Open Meeting Act. The public may take appropriate opportunities to comment on any issue before the Board at the time the item is heard, but the President may, at his discretion, apportion available time among those who wish to speak. The public may comment on issues not on the agenda, but Board Members cannot discuss any issue that is not listed on the agenda. If you are presenting information to the Board, please provide 13 copies of your testimony for the Board Members and staff. Copying equipment is not available at the meeting location.

The meeting is accessible to the physically disabled. A person who needs a disability-related accommodation or modification in order to participate in the meeting may make a request by contacting the Structural Pest Control Board at (916) 561-8700 or email [pestboard@dca.ca.gov](mailto:pestboard@dca.ca.gov) or send a written request to the Structural Pest Control Board,

2005 Evergreen Street, Suite 1500, Sacramento, CA 95815. Providing your request at least five (5) business days before the meeting will help to ensure availability of the requested accommodation.

While the Board intends to webcast this meeting, it may not be possible to webcast the entire open meeting due to limitations on resources or technical difficulties that may arise. To view the Webcast, please visit [www.thedcapage.wordpress.com/webcasts/](http://www.thedcapage.wordpress.com/webcasts/).

This agenda can be found on the Structural Pest Control Board's website at: [www.pestboard.ca.gov](http://www.pestboard.ca.gov).

**MINUTES OF THE MEETING OF THE  
STRUCTURAL PEST CONTROL BOARD**

April 17, 2019

The Meeting Was Held April 17, 2019 At The Department Of Consumers Affairs,  
Hearing Room, 2005 Evergreen Street, Sacramento, CA 95815

**Board Members Present:**

Darren Van Steenwyk, President  
Dave Tamayo, Vice President  
Mike Duran  
Curtis Good

**Board Members Absent:**

Ronna Brand

**Board Staff Present:**

Susan Saylor, Executive Officer  
David Skelton, Administrative Analyst

**Departmental Staff Present:**

Sabina Knight, Legal Counsel  
Karen Nelson, Executive Office

**ROLL CALL / ESTABLISHMENT OF QUORUM**

Mr. Van Steenwyk called the meeting to order at 8:04 A.M. and Mr. Skelton called roll.

Board members Van Steenwyk, Tamayo, Duran, and Good were present.

Board member Brand was absent.

A quorum of the Structural Pest Control Board (SPCB) was established.

**FLAG SALUTE / PLEDGE OF ALLEGIANCE**

Mr. Van Steenwyk led everyone in a flag salute and recitation of the Pledge of Allegiance.

**PUBLIC COMMENT FOR ITEMS NOT ON THE AGENDA**

There were no public comments for items not on the agenda.

**PETITION FOR REINSTATEMENT**  
**DAWN MARIE CHARRETTE – OPR 9119 – BRANCHES 1 & 3**

Administrative Law Judge Marcie Larson sat with the SPCB to hear the Petition for Reinstatement of Dawn Marie Charrette, Operator License Number 9119. Ms. Charrette was informed she would be notified by mail of the SPCB's decision.

**PETITION FOR REINSTATEMENT**  
**JESUS DE LARA – FR 44208 – BRANCHES 2 & 3**

Administrative Law Judge Marcie Larson sat with the SPCB to hear the Petition for Reinstatement of Jesus De Lara, Field Representative License Number 44208. Mr. De Lara was informed he would be notified by mail of the SPCB's decision.

**CLOSED SESSION**

Pursuant to subdivision (c)(3) of section 11126 of the Government Code the SPCB met in closed session to consider reinstatements, proposed disciplinary actions, and stipulated settlements.

**Reconvene in Open Session**

**REVIEW AND APPROVAL OF MINUTES OF THE JANUARY 15 & 16, 2019 MEETING**

Mr. Tamayo moved and Mr. Duran seconded to approve the Minutes of the January 15 & 16, 2019 meeting of the SPCB. Passed unanimously.  
(AYES: VAN STEENWYK, TAMAYO, DURAN, GOOD. NOES: NONE. ABSTENTIONS: NONE.)

**DISCUSSION AND POSSIBLE ACTION ON OCCUPATIONAL ANALYSIS FOR APPLICATORS**

Ms. Saylor stated that the goal is to hold a stakeholder meeting for the Applicator Occupational Analysis in October 2019 to coincide with the Board Meeting. Ms. Saylor stated that all interested parties are welcome at the stakeholder meeting.

Chris Reardon, Pest Control Operators of California (PCOC), stated his support for the October 2019 stakeholder meeting and expressed optimism about the potential good that could result from holding it.

Mr. Van Steenwyk stated that the industry has been very excited for the opportunity to provide input about the Applicator examination and that he hoped for a large turnout at the stakeholder meeting.

Todd Veden, Terminix, stated his support for, and optimism about, the stakeholder meeting.

**PRESENTATION AND POSSIBLE ACTION ON REGULATORY AMENDMENTS MANDATED BY ASSEMBLY BILL 2138 (CHIU) - CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 16, SECTIONS 1937.1, 1937.2 – SUBSTANTIAL RELATION CRITERIA AND REHABILITATION CRITERIA**

Ms. Saylor stated that the proposed regulatory amendments are needed to implement the changes made by Assembly Bill 2138 (Chiu) as they relate to the SPCB's use of substantial relation and rehabilitation criteria in licensing decisions.

Mr. Duran moved and Mr. Good seconded to approve the proposed text for a 45 day public comment period and delegate to the executive officer the authority to adopt the proposed regulatory changes if there are no adverse comments received during the public comment period and to follow established procedures and processes in doing so and also to delegate to the executive officer the authority to make any technical and non-substantive changes that may be required in completing the rulemaking file. Passed unanimously. (AYES: VAN STEENWYK, TAMAYO, DURAN, GOOD. NOES: NONE. ABSTENTIONS: NONE.)

**EXECUTIVE OFFICER'S REPORT**

Ms. Saylor updated the SPCB on licensing, enforcement, examination, and wood destroying organisms (WDO) statistics, survey results, and examination development.

Mr. Van Steenwyk stated that the examination passing rates for Applicators and Field Representatives are up from last year and that the industry appreciates the ability to get new employees licensed and into the field faster.

Ms. Saylor stated that Kevin Lau and Maria Perez recently left the complaint unit and that Rachel Stora was promoted, and Hollie Glasner hired, to fill those positions and they are expected to start May 1, 2019.

Ms. Saylor stated that a job offer has been made to fill the long vacant Applicator licensing desk and that the individual should be able to start around May 1, 2019.

Ms. Saylor stated that Jeff Marang would also be starting around May 1, 2019 as the newest SPCB Enforcement Specialist and that the southern California Enforcement Specialist position would not be filled for the time being. Ms. Saylor further stated that more interviews would be conducted soon for the southern California Enforcement Specialist position.

Ms. Saylor updated the Board on the Branch 1 workshop that was held March 28 & 29, 2019 at Mr. Good's office. Ms. Saylor stated that it was still difficult to get industry participation and asked for help getting the word out for future surveys and workshops.

Mr. Good stated that Branch 1 workshops should ideally be held in the winter because spring and summer is their busiest time.

Mr. Reardon stated that PCOC will actively work with the SPCB on securing locations and licensees for future workshops.

Mr. Good stated that when possible future workshops should be timed to coincide with PCOC meetings to take advantage of the industry expertise in attendance.

Ms. Saylor stated that she would work with Office of Professional Examination Services (OPES) on trying to coordinate workshops to coincide with PCOC meetings.

#### **UPDATE ON THE STATUS OF THE RESEARCH PROPOSALS SELECTED FOR FUNDING AT THE JULY 26, 2018 BOARD MEETING**

Ms. Saylor stated that the materials included in the Board packages are updates on where the researchers are with their respective projects and what invoices have been submitted thus far.

Mr. Van Steenwyk stated that the researchers first official progress reports are due by the end of April 2019 and would likely be included in the Board materials for the July 2019 meeting.

#### **DISCUSSION AND POSSIBLE ACTION ON THE STRUCTURAL PEST CONTROL BOARD'S COMPLIANCE WITH U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) PESTICIDE APPLICATOR REGULATIONS**

Mr. Van Steenwyk stated that the Department of Pesticide Regulation (DPR) is the state lead agency responsible for ensuring that the SPCB is in compliance with Federal EPA Applicator regulations.

Ms. Saylor stated that she has been working with DPR in determining what changes are needed for the SPCB to be fully compliant with the EPA Applicator regulations and that the SPCB's official response is due in September, 2019.

Leslie Talpasanu, DPR, addressed the SPCB and explained the EPA's timeline and expectations for state compliance with federal regulations. Ms. Talpasanu stated that DPR must submit California's plan by March, 2020 and that the EPA has 2 years from that point to approve the plan.

Mr. Tamayo expressed concern about the SPCB's ability to navigate the legislative and rulemaking process in a timely enough manner to comply with the EPA's timeline.

Ms. Talpasanu stated that after the plan is submitted the process of implementation can occur simultaneously with the approval process.

#### **DISCUSSION OF THE BOARD'S ANNUAL BUDGET AND POSSIBLE ACTION REGARDING WDO FILING FEE INCREASE: BUSINESS AND PROFESSIONS CODE (BPC) SECTION 8674 AND CCR, TITLE 16, SECTION 1997**

Marie Reyes, DCA Budget Analyst, stated that current budget projections show the SPCB's expenditures exceeding its revenue and its budget reserve being completely depleted by Fiscal

Year (FY) 2019-2020. Ms. Reyes recommended that the SPCB increase its WDO Inspection Reporting Fee from \$3.00 per property address reported, to \$4.00 per property address reported.

Ms. Saylor stated that the previous WDO Inspection Reporting Fee increase was from \$2.50 per property address reported, to \$3.00 per property address reported, because the statutory maximum at the time was \$3.00. Ms. Saylor further stated that the statutory maximum was increased from \$3.00 to \$5.00 in the SPCB's 2018 Sunset Bill.

Ms. Saylor stated that costs have increased significantly across several core areas including Deputy Attorney General (DAG) costs, Office of Administrative Hearings (OAH) costs, and DCA Pro-Rata costs. Ms. Saylor further stated that the SPCB is in the process of updating its computer systems which will also carry significant costs.

Mr. Good asked what percentage of the SPCB's enforcement activity is related to Branch 3 activity since the Branch 3 companies will bear the brunt of the proposed WDO Inspection Reporting Fee increase.

Ms. Saylor stated that approximately 90% of the SPCB's enforcement action is related to Branch 3 activity.

Mr. Good stated his concern that there are Branch 3 companies who are not complying with the law and reporting their WDO activities.

Ms. Saylor stated that SPCB staff is focused on ensuring compliance with the WDO Inspection Reporting law. Ms. Saylor stated that the WDO database is continuously monitored and that SPCB's Enforcement Specialists are regularly dispatched to perform office records checks.

Mr. Reardon stated that the industry wants to be responsible stewards and ensure the SPCB has a sustainable operating budget while also seeing that the fees it pays are used prudently.

Mr. Veden stated that Branch 3 businesses would bear the brunt of the WDO Inspection Reporting Fee being increased and that in his opinion the impact should be absorbed across the pest control industry. Mr. Veden suggested, as an alternative, that fees for licensing and renewal applications could be increased.

Ms. Knight stated that the SPCB would not be voting at this meeting because there is no regulatory language to vote on.

Mr. Skelton stated that staff would prepare language for the SPCB to vote on at a future teleconference meeting.

Mr. Good asked that staff provide a more detailed summary of the SPCB's spending at the teleconference meeting.

**DISCUSSION AND POSSIBLE ACTION ON OFFICE OF PROFESSIONAL EXAMINATION SERVICES (OPES) RECOMMENDATION TO ELIMINATE CONTINUING EDUCATION CHALLENGE EXAMINATIONS - BPC SECTIONS 8593 AND 8593.1 - CCR, TITLE 16, SECTIONS 1948 AND 1951**

Ms. Saylor stated that OPES has recommended the SPCB eliminate its continuing education challenge examination.

Ms. Saylor stated that it is difficult for staff to ensure examination security and comply with testing protocols when administering the challenge examination.

Mr. Good stated that it does not serve the SPCB licensing population to offer an outdated examination and with so few people utilizing the challenge exam it is not cost effective for the SPCB to ask OPES to create a new one.

Mr. Duran moved and Mr. Tamayo seconded to eliminate the SPCB's challenge examinations in statute (BPC sections 8593 and 8593.1) and to give authority to the executive office to pursue those changes legislatively. Passed unanimously.  
(AYES: VAN STEENWYK, TAMAYO, DURAN, GOOD. NOES: NONE. ABSTENTIONS: NONE.)

Mr. Tamayo moved and Mr. Van Steenwyk seconded to approve the proposed text (CCR, Title 16, sections 1948 and 1951) for a 45 day public comment period and delegate to the executive officer the authority to adopt the proposed regulatory changes if there are no adverse comments received during the public comment period and to follow established procedures and processes in doing so and also to delegate to the executive officer the authority to make any technical and non-substantive changes that may be required in completing the rulemaking file. Passed unanimously.  
(AYES: VAN STEENWYK, TAMAYO, DURAN, GOOD. NOES: NONE. ABSTENTIONS: NONE.)

**REGULATIONS UPDATE AND POSSIBLE ACTION - CCR, TITLE 16, SECTIONS 1950, 1950.5, 1953 – CONTINUING EDUCATION - CCR, TITLE 16, SECTION 1997 – WDO INSPECTION AND COMPLETION ACTIVITY FEE**

Mr. Skelton stated that he is scheduled to meet with DPR on May 15, 2019 to discuss the EPA Applicator regulations and how they pertain to the SPCB's proposed changes to its continuing education program.

Mr. Van Steenwyk asked Mr. Skelton to get DPR's input prior to the May 15, 2019 meeting if it were possible to do so.

Mr. Van Steenwyk stated that the amendments to CCR section 1970.4 would be very beneficial to both consumers and the pest control industry and asked that they be implemented as soon as possible.

## **LEGISLATION UPDATE AND POSSIBLE ACTION**

### **Assembly Bill 193 (Patterson)**

Ms. Knight stated that AB 193 would require boards to conduct a comprehensive review of their licensing requirements and thereafter would require boards to submit a report detailing their plans to facilitate license portability for members of the armed services.

Mr. Van Steenwyk stated that the SPCB would continue to watch AB 193.

### **Assembly Bill 434 (Baker)**

Ms. Saylor stated that AB 434 went into effect January 1, 2019 and requires the SPCB's website to fully compliant with the Americans With Disabilities Act (ADA) by July 1, 2020.

Mr. Skelton stated that everything posted on the SPCB's website must be able to be read by text recognition software. Mr. Skelton stated that in order for scanned documents to be posted they must be posted along with a version of the document that can be read by text recognition software.

Mr. Tamayo asked if this would limit the public's access to previously available documents.

Mr. Skelton stated that DCA is working diligently to ensure that all necessary documents continue to be posted in an ADA compliant manner.

### **Assembly Bill 613 (Low)**

Ms. Knight stated that AB 613 would give boards the ability to increase their fees once every 4 years in proportion to the Consumer Price Index (CPI). Ms. Knight stated that this increase would occur outside of the regulatory process and would be subject to the approval of the Director of DCA.

Mr. Tamayo asked if this type of fee increase would be subject to statutory fee maximums.

Mr. Skelton stated that fee increases made pursuant to AB 613 would not be subject to statutory fee maximums. Mr. Skelton further stated that the author's office was considering holding a stakeholder meeting and that more information would potentially be available in the coming weeks.

Mr. Tamayo stated that his support for the concept of this type of fee increase provided the regulated public still had an opportunity to provide input.

Mr. Van Steenwyk stated that the SPCB would continue to watch AB 613.

### **Assembly Bill 1024 (Frazier)**

Mr. Van Steenwyk stated that AB 1024 proposes to license home inspectors under the Contractors State License Board (CSLB) but at this time it is unclear whether the bill will be moving forward.

### **Assembly Bill 1788 (Bloom)**

Mr. Van Steenwyk stated that AB 1788 proposes to ban specified anti-coagulant rodenticides and suggested the SPCB take an oppose position as it done in the past when similar bills were introduced. Mr. Van Steenwyk further stated that the SPCB has just funded a \$350,000 research project in an effort to identify how anti-coagulant rodenticides are contaminating non-target wildlife.

Mr. Van Steenwyk moved and Mr. Good seconded for the SPCB to take an oppose position on Assembly Bill 1788 because the SPCB is currently funding research to better understand the pathways of anti-coagulant rodenticides into non-target wildlife. Passed unanimously.

(AYES: VAN STEENWYK, TAMAYO, DURAN, GOOD. NOES: NONE. ABSTENTIONS: NONE.)

Mr. Reardon stated that in addition to the research being funded by the SPCB, DPR has begun the process of re-evaluating anti-coagulant rodenticides. Mr. Reardon further stated that the process in California is for DPR to continuously evaluate pesticides and that AB 1788 is proposing to ban anti-coagulant rodenticides before that process has occurred.

### **Senate Bill 53 (Wilk)**

Ms. Knight stated that SB 53 would make 2 member committees subject to the provisions of the Bagley Keene Open Meetings Act.

Mr. Tamayo stated that SB 53 is unnecessarily restrictive and there is a public benefit for 2 board members to have the ability to discuss board related issues.

Mr. Tamayo moved and Mr. Good seconded for the SPCB to take an oppose position to the SB 53. Passed unanimously.

(AYES: VAN STEENWYK, TAMAYO, DURAN, GOOD. NOES: NONE. ABSTENTIONS: NONE.)

### **FUTURE AGENDA ITEMS**

The following were identified as future agenda items:

SPCB compliance with EPA Applicator Regulations

Legislation – AB 193, AB 434, AB 613, AB 1788, SB 53

Regulations – CCR, Title 16, Sections 1950, 1950.5, 1953, 1970.4, 1997

**BOARD CALENDAR**

The next 4 meetings of the SPCB were scheduled as follows:

May 14, 2019 Teleconference Meeting

July 17, 2019 in Southern California

October 23 & 24, 2019 in Sacramento

March 11 & 12, 2020 in Sacramento

**ADJOURNMENT**

The meeting was adjourned at 12:39 P.M.

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Darren Van Steenwyk, President

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Date

**MINUTES OF THE TELECONFERENCE MEETINGS OF THE  
STRUCTURAL PEST CONTROL BOARD**

May 29, 2019

The Meeting Was Held May 29, 2019 at the Department of Consumer Affairs,  
Lake Tahoe Conference Room, 2005 Evergreen Street, Sacramento, CA 95815

**Additional Teleconference Locations Were Established as Follows:**

Newport Exterminating, 16661 Millikan Avenue, Irvine, CA 92606  
Duran's Termite & Pest Control, 82229 Bliss Avenue, Indio, CA 92201

**Board Members Present:**

Darren Van Steenwyk, President (Sacramento)  
Dave Tamayo, Vice President (Sacramento)  
Mike Duran (Indio)  
Curtis Good (Irvine)

**Board Members Absent:**

Ronna Brand

**Board Staff Present:**

Susan Saylor, Executive Officer  
David Skelton, Administrative Analyst

**Departmental Staff Present:**

Sabina Knight, Legal Counsel  
Karen Nelson, Executive Office

**ROLL CALL / ESTABLISHMENT OF QUORUM**

Mr. Van Steenwyk called the meeting to order at 9:01 A.M. and Ms. Saylor called roll.

Board members Van Steenwyk and Tamayo were present at the Sacramento location. Board member Duran was present at the Indio location. Board member Good was present at the Irvine location.

Board member Brand was absent.

No members of the public were present at the Sacramento, Indio, or Irvine locations.

A quorum of the Board was established.

## **PUBLIC COMMENT FOR ITEMS NOT ON THE AGENDA**

There were no public comments for items not on the agenda.

## **DISCUSSION AND POSSIBLE ACTION ON REGULATORY AMENDMENT TO INCREASE WDO INSPECTION REPORT FILING FEE: CALIFORNIA CODE OF REGULATIONS, TITLE 16, SECTION 1997**

Ms. Saylor stated DCA Budget Office is recommending that the SPCB move forward with an emergency increase of the WDO Inspection Reporting Fee from \$3.00 to \$4.00 to have an effective date of July 1, 2019.

Mr. Van Steenwyk stated that PCOC's position is that the SPCB's costs are going up and if the fee increase is what is needed to provide the necessary service and oversight of the industry then they are in support of it.

Mr. Tamayo moved and Mr. Good seconded to approve the proposed text for a 45 day public comment period and delegate to the executive officer the authority to adopt the proposed regulatory changes if there are no adverse comments received during the public comment period and to follow established procedures and policies in doing so and also delegate to the executive officer the authority to make any technical or non-substantive changes that may be required in completing the rulemaking file and also to pursue an early effective date via the emergency rulemaking process. Passed unanimously.  
(AYES: VAN STEENWYK, TAMAYO, DURAN, GOOD. NOES: NONE. ABSTENTIONS: NONE.)

## **FUTURE AGENDA ITEMS**

There were no future agenda items identified.

## **ADJOURNMENT**

The meeting was adjourned at 9:10 A.M.

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Darren Van Steenwyk, President

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Date



STRUCTURAL PEST CONTROL BOARD

2005 Evergreen Street, Ste. 1500, Sacramento, CA 95815

## **Townhall (Focus Group) Meeting Information**

|                               |                                |                    |   |
|-------------------------------|--------------------------------|--------------------|---|
| <b>Date:</b> October 23, 2019 | <b>Time</b> 9:00 am to 1:00 pm | <b>Venue:</b> SPCB | <b>Facilitators:</b> OPES Representatives |
|-------------------------------|--------------------------------|--------------------|---|

|                 |   |
|-----------------|---|
| <b>Subject:</b> | Applicator Branch Occupational Analysis (OA) Focus Group Meeting  |
| <b>Purpose:</b> | <ul style="list-style-type: none"><li>➤ The purpose of the OA is to develop a description of the Applicator profession in terms of the tasks and knowledge that must be mastered to practice safely and competently to protect consumers. The results of the new OA will be used to help ensure that licensing examinations accurately assess what Applicators do while performing their work and what knowledge they require.</li><li>➤ The purpose of the focus group is to provide an opportunity for stakeholders (e.g., Applicators, Operators, Field Representatives, Educators, and the public) to provide feedback on issues concerning the practice of the Applicator licensee such as, but not limited to: existing challenges, emerging trends, anticipated changes in California law, and practice areas that merit special consideration (e.g., California specific parameters of practice).</li></ul> |

### **Agenda:**

- 9:00am – 10:15am\*: Presentation – Overview of Occupational Analysis & Exam Development
- 10:15 am – 10:25 am\*: Instructions and division of attendees (depending on the number of participants) into small focus groups based on their branch &/or license type.
- 10:25 to 10:45: Review current Applicator exam plan (Task & Knowledge) in use.
- 10:45am – 11am\*: Break
- 11:00am – 12:00 am\*: Small focus group activity with discussion of questions (Some sample questions given below)
- 12:00 pm – 1:00 pm\*: Large group general discussion and recording of findings

**\*Please Note:** Times are approximation

**California Applicator Occupational Analysis Focus Group**  
**Sample Questions for Discussion & Input**

The following questions are provided to stimulate thought and discussion in areas where stakeholder input may contribute to the development of the occupational analysis. Stakeholder input and suggestions will be transcribed and included for discussion in upcoming occupational analysis workshops. In consideration of the previous occupational analysis(OA) definition of practice, please answer/discuss the following questions within your focus group:

1. Please describe the knowledge, skills and competencies that are expected from Applicators.
2. In general, how well do you think applicators are meeting those expectations?
3. What are all the primary responsibilities of the Applicator when performing the job?
4. With reference to the existing exam plan is there anything that does not make sense or that does not currently apply to the practice of the Applicator profession?
5. If you were to think of the 5 most common activities performed by Applicators does the current definition of practice address them?
6. Is there a particular practice area missing?
7. What practice areas merit special consideration for exploration in the upcoming occupational analysis workshops, and why?
8. How does the knowledge of Applicators possessed by entry-level Applicators (0-5 years in licensed practice) differ from that of a more experienced Applicator (6 or more years in licensed practice)?
9. What kind of education or training is received by or given to the applicator and for how long before they take the licensing exam?
10. What are the challenges faced by Applicators in taking the exam and passing it?

| STRUCTURAL PEST CONTROL BOARD<br>STATISTICS FOR MAY 2019 |         | FISCAL YEAR<br>2018/2019 |         | FISCAL YEAR<br>2017/2018 |  |
|--|---------|--------------------------|---------|--------------------------|--|
| Page 1 of 2  |         |                          |         |                          |  |
|  |         |                          |         |                          |  |
| EXAMINATION  | Monthly | Year<br>To Date          | Monthly | Year<br>To Date          |  |
| Field Representatives Scheduled/Authorized               | 543     | 5,849                    | 805     | 5,940                    |  |
| Field Representatives Examined                           | 488     | 4,606                    | 716     | 4,508                    |  |
| Field Representatives Passed                             | 115     | 2,345                    | 354     | 1,812                    |  |
| Field Representatives Failed                             | 373     | 2,261                    | 362     | 2,696                    |  |
|  |         |                          |         |                          |  |
| Operators Scheduled/Authorized                           | 43      | 500                      | 56      | 444                      |  |
| Operators Examined                                       | 36      | 464                      | 46      | 398                      |  |
| Operators Passed   | 7       | 216                      | 22      | 229                      |  |
| Operators Failed   | 29      | 248                      | 24      | 169                      |  |
|  |         |                          |         |                          |  |
| Applicators Scheduled/Authorized                         | 239     | 3,378                    | 396     | 4,136                    |  |
| Applicators Examined                                     | 299     | 2,774                    | 379     | 3,325                    |  |
| Applicators Passed                                       | 227     | 1,362                    | 149     | 1,203                    |  |
| Applicators Failed                                       | 72      | 1,412                    | 230     | 2,122                    |  |
|  |         |                          |         |                          |  |
| Field Representatives Passing Rate                       | 24%     | 51%                      | 49%     | 40%                      |  |
| Operator Passing Rate                                    | 19%     | 47%                      | 48%     | 58%                      |  |
| Applicators Passing Rate                                 | 76%     | 49%                      | 39%     | 36%                      |  |
|  |         |                          |         |                          |  |
| LICENSING  |         |                          |         |                          |  |
| Field Representative Licenses Issued                     | 346     | 1,874                    | 194     | 1,389                    |  |
| Operator Licenses Issued                                 | 21      | 160                      | 19      | 169                      |  |
| Company Registrations Issued                             | 32      | 248                      | 18      | 197                      |  |
| Branch Office Registrations Issued                       | 2       | 47                       | 2       | 19                       |  |
| Change of Registered Company Officers                    | 3       | 34                       | 2       | 20                       |  |
| Change Of Qualifying Manager                             | 10      | 99                       | 8       | 95                       |  |
| Applicator Licenses Issued                               | 155     | 1,231                    | 103     | 1,130                    |  |
| Duplicate Licenses Issued                                | 51      | 1,015                    | 102     | 902                      |  |
| Upgrade Present License                                  | 38      | 311                      | 13      | 216                      |  |
| Change of Status Processed                               | 57      | 525                      | 52      | 512                      |  |
| Address Change   | 164     | 2,226                    | 144     | 1,379                    |  |
| Address Change (Principal Office)                        | 20      | 278                      | 29      | 240                      |  |
| Address Change (Branch Office)                           | 1       | 16                       | 2       | 34                       |  |
| Transfer of Employment Processed                         | 341     | 2,353                    | 227     | 2,158                    |  |
| Change of Name   | 0       | 23                       | 2       | 19                       |  |
| Change of Registered Company Name                        | 2       | 18                       | 1       | 12                       |  |
| License Histories Prepared                               | 13      | 158                      | 10      | 188                      |  |
| Down Grade Present License                               | 122     | 905                      | 63      | 647                      |  |
|  |         |                          |         |                          |  |
| LICENSES/REGISTRATIONS IN EFFECT                         |         |                          |         |                          |  |
| Field Representative                                     |         | 13,644                   |         | 12,665                   |  |
| Operator   |         | 4,224                    |         | 4,184                    |  |
| Company Registration                                     |         | 3,168                    |         | 3,084                    |  |
| Branch Office  |         | 442                      |         | 440                      |  |
| Licensed Applicator                                      |         | 7,005                    |         | 7,222                    |  |
|  |         |                          |         |                          |  |
| LICENSES/REGISTRATIONS ON PROBATION                      |         |                          |         |                          |  |
| Companies  |         | 28                       |         | 21                       |  |
| Licensees  |         | 105                      |         | 88                       |  |

| <b>STRUCTURAL PEST CONTROL BOARD</b>     |  | <b>FISCAL YEAR</b> |                | <b>FISCAL YEAR</b> |                |
|--|--|--------------------|----------------|--------------------|----------------|
| <b>STATISTICS FOR MAY 2019</b>           |  | <b>2018/2019</b>   |                | <b>2017/2018</b>   |                |
|  |  |                    | <b>Year</b>    |                    | <b>Year</b>    |
|  |  | <b>Monthly</b>     | <b>To Date</b> | <b>Monthly</b>     | <b>To Date</b> |
| <b>LICENSES RENEWED</b>                  |  |                    |                |                    |                |
| Operator                                 |  | 243                | 690            | 317                | 612            |
| Field Representative                     |  | 443                | 1,528          | 558                | 1,131          |
| Applicator                               |  | 103                | 598            | 141                | 429            |
|  |  |                    |                |                    |                |
| <b>LICENSES/ REGISTRATIONS CANCELLED</b> |  |                    |                |                    |                |
| Operator                                 |  | 4                  | 120            | 1                  | 120            |
| Field Representative                     |  | 12                 | 1,141          | 14                 | 962            |
| Company Registration                     |  | 36                 | 168            | 11                 | 139            |
| Branch Office                            |  | 1                  | 31             | 4                  | 15             |
| Applicator                               |  | 16                 | 1,631          | 8                  | 1,533          |
|  |  |                    |                |                    |                |
| <b>LICENSES DENIED</b>                   |  |                    |                |                    |                |
| Licenses                                 |  | 5                  | 37             | 1                  | 27             |
|  |  |                    |                |                    |                |
| <b>INVESTIGATIVE FINES PROCESSED</b>     |  |                    |                |                    |                |
| Fines Processed                          |  | \$7,025            | \$58,462       | \$1,375            | \$52,602       |
| Penalty Assessment                       |  | \$0                | \$0            | \$0                | \$0            |
| Pesticide Fines                          |  | \$11,050           | \$144,441      | \$18,075           | \$114,484      |
|  |  |                    |                |                    |                |
| <b>STAMPS SOLD</b>                       |  |                    |                |                    |                |
| Pesticide                                |  | 6,211              | 68,971         | 7,080              | 67,776         |
|  |  |                    |                |                    |                |
| <b>SEARCHES MADE</b>                     |  |                    |                |                    |                |
| Public                                   |  | 62                 | 821            | 78                 | 801            |
| Complaints                               |  | 20                 | 84             | 10                 | 144            |
|  |  |                    |                |                    |                |
| <b>BOND &amp; INSURANCE</b>              |  |                    |                |                    |                |
| Bonds Processed                          |  | 15                 | 146            | 25                 | 262            |
| Insurance Processed                      |  | 220                | 2345           | 210                | 2523           |
| Restoration Bonds Processed              |  | 0                  | 3              | 1                  | 8              |
| Suspension Orders                        |  | 47                 | 510            | 28                 | 424            |
| Cancellations Processed                  |  | 37                 | 313            | 65                 | 508            |
| Change of Bond/Insurance                 |  | 0                  | 301            | 40                 | 466            |
|  |  |                    |                |                    |                |
| <b>CONTINUING EDUCATION EXAMS</b>        |  |                    |                |                    |                |
| Field Representative Examined            |  | 2                  | 2              | 0                  | 12             |
| Field Representative Passed              |  | 0                  | 0              | 0                  | 5              |
| Field Representative Failed              |  | 2                  | 2              | 0                  | 7              |
|  |  |                    |                |                    |                |
| Operator Examined                        |  | 2                  | 2              | 0                  | 2              |
| Operator Passed                          |  | 0                  | 0              | 0                  | 1              |
| Operator Failed                          |  | 2                  | 2              | 0                  | 1              |
|  |  |                    |                |                    |                |
| Applicator Examined                      |  | 0                  | 0              | 0                  | 0              |
| Applicator Passed                        |  | 0                  | 0              | 0                  | 0              |
| Applicator Failed                        |  | 0                  | 0              | 0                  | 0              |

## LICENSING UNIT SURVEY RESULTS

July 17, 2019 – SPCB Meeting

April 4, 2019 – July 8, 2019

Response cards are sent to licensees, registered companies, and applicants receiving the following services: Licensure, Renewal of License, Upgrade/Downgrade License, Change of Qualifying Manager, Bond/Insurance, Company Registration, Transfer of Employment, Change of Address, and Examination. One hundred twenty survey cards were mailed during this reporting period. Eight responses were received.

|   | Question   | Yes     | No | N/A |
|---|--|---------|----|-----|
| 1 | Was staff courteous?   | 100%    | 0% | 0%  |
| 2 | Did staff understand your question?                                  | 100%    | 0% | 0%  |
| 3 | Did staff clearly answer your question?                              | 100%    | 0% | 0%  |
| 4 | Did staff promptly return your telephone call?                       | 75%     | 0% | 25% |
| 5 | Did staff efficiently and promptly handle your transaction?          | 88%     | 0% | 12% |
| 6 | How long did it take to complete its action on your file?* (Average) | 16 days |    |     |

\*There were 3 responses to question 6.

**Company Registration:** 2 days (1 response)

**Operator License:** N/A (0 responses)

**Field Representative License:** N/A (0 responses)

**Applicator License:** 23 days (2 responses)

**Transfer of Employment:** N/A (0 responses)

**Change of Address:** N/A (0 responses)

**Bond/Insurance:** N/A (0 responses)

**Change of Qualifying Manager:** N/A (0 responses)

**Examination:** N/A (0 responses)

Comments:

- Very helpful and resolved issue much quicker than I expected. Thank you!
- Mr. Frank Munoz was professional, patient and was very helpful. Made himself available. I'm grateful for his help!

- Thanks for the help.
- Frank Munoz was amazing! He responded to every email, and fast.
- All is great.
- Receive my license in a reasonable time. No trouble.

## WDO ACTIVITIES FILED

|                 | 2014/15          | 2015/16          | 2016/17          | 2017/18          | 2018/19          | MO. AVG          |
|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| July            | 122,803          | 121,639          | 111,086          | 124,000          | 117,000          | 117,984          |
| August          | 112,400          | 112,511          | 121,000          | 128,400          | 128,000          | 114,506          |
| September       | 116,100          | 115,977          | 119,089          | 119,000          | 110,445          | 116,710          |
| October         | 123,250          | 123,409          | 125,804          | 124,100          | 127,700          | 122,164          |
| November        | 94,750           | 100,779          | 118,121          | 117,000          | 105,000          | 104,018          |
| December        | 95,373           | 105,326          | 106,000          | 96,100           | 93,600           | 99,353           |
| January         | 88,247           | 83,209           | 96,000           | 94,900           | 90,000           | 91,038           |
| February        | 97,884           | 97,100           | 95,000           | 96,900           | 93,000           | 95,412           |
| March           | 124,448          | 122,261          | 127,300          | 115,000          | 116,000          | 119,755          |
| April           | 131,292          | 128,201          | 122,120          | 115,000          | 127,600          | 125,221          |
| May             | 116,578          | 123,028          | 132,900          | 123,000          | 133,100          | 120,534          |
| June            | 124,648          | 131,954          | 135,000          | 127,000          | 137,600          | 125,138          |
| <b>FY Total</b> | <b>1,347,773</b> | <b>1,365,394</b> | <b>1,409,420</b> | <b>1,380,400</b> | <b>1,379,045</b> | <b>1,351,834</b> |
| AVG PER MO.     | 112,314          | 113,783          | 117,452          | 115,033          | 114,920          |                  |

## **Diet and Colony Structure of Two Emerging Invasive Pest Ants**

### **Interim Progress Report (6 month)**

In the first six months of this research program we have made good progress on the proposed research. Below, I list each of the four proposed experiments and the respective six-month goal for each. In each of the four sections, I also describe our activities and accomplishments during this review period.

The overarching goal of this research program is to develop fundamental biological knowledge about two recently emerging pest ants, the brown rover ant (*Brachymyrmex patagonicus*) and the Moorish sneaking ant (*Cardiocondyla mauritanica*). Specifically, we are focusing on two basic biological processes: diet and colony structure.

**1. Experiment 1A. Overall goal:** *Census subpopulations within 20 colonies: eggs, larvae, pupae, workers, males, mated and unmated queens.*

- **Six-month goal (March 2019):** Purchase materials and set up lab to receive colonies. Conduct exploratory field trip to southern California to identify sites for colony collection.

**ACTIVITIES AND ACCOMPLISHMENTS.** We have accomplished these goals. We have purchased and assembled the necessary equipment for colony rearing in the lab. We have conducted a field trip to southern California (Los Angeles County) and identified a number of city parks where *Brachymyrmex patagonicus* occurs abundantly. We have also performed fieldwork in northern California and identified sites in Alameda, Contra Costa, and Sacramento counties where *Cardiocondyla mauritanica* colonies occur. Using this information, we will begin collecting colonies for censusing during the next six-month period.

**2. Experiment 1B. Overall goal:** *Determine the spatial extent of colonies in the field using behavioral assays.*

- **Six-month goal (March 2019):** Purchase materials. Conduct exploratory trip to southern California to identify sites for colony collection (as above).

**ACTIVITIES AND ACCOMPLISHMENTS.** We have accomplished these goals. We have purchased the necessary supplies and, as described above, we have performed fieldwork in northern and southern California and identified locations for the proposed behavioral studies. Using this information, we will begin collecting behavioral data on colony boundaries and intraspecific aggression, as described in the research proposal.

**3. Experiment 2A. Overall goal:** *Perform dietary preference experiments in the laboratory.*

- **Six-month goal (March 2019):** Purchase materials. Conduct exploratory trip to southern California to identify sites for colony collection (as above).

**ACTIVITIES AND ACCOMPLISHMENTS.** We have accomplished these goals. We have purchased the necessary supplies and, as described above, we have performed fieldwork in northern and southern California and identified locations for the proposed colony collection and subsequent dietary experiments. Using this information, during the next six months we will begin collecting

Interim progress report: 6 mo.

colonies and transporting them to the laboratory to perform the dietary experiments described in the research proposal.

**4. Experiment 2B. Overall goal:** *Quantify nitrogen (N) and carbon (C) stable isotope ratios to determine trophic position.*

- **Six-month goal (March 2019):** Purchase materials. Conduct exploratory trip to southern California to identify sites for colony collection (as above).

**ACTIVITIES AND ACCOMPLISHMENTS.** We have accomplished these goals and are far ahead of schedule on data collection. We have purchased the necessary supplies and, as described above, we have performed fieldwork in northern and southern California to identify locations for fieldwork. At three sites in northern California, we have collected *C. mauritanica* and broadly collected sympatric insects from throughout the food web. We have prepared these samples and submitted them to the Center for Stable Isotope Biogeochemistry at UC Berkeley for estimation of N and C isotope ratios. We should receive these data back within weeks. Using knowledge from our fieldwork, we will replicate these collections during the next reporting period and add isotopic data for both species from several other sites.

# Progress Report

Reporting Period     10-19-2018                      to     4-30-2019

Submittal Date:     4-30-2019

Project Title                      “Improving Urban Pest Ant Management by Low-Impact IPM Strategies”

Grant Agreement No.     26710

Principal Investigator     Dong-Hwan Choe, University of California, Riverside

## 1. List of work performed during this reporting period

Several different methods were tested to streamline the manufacturing process of the biodegradable hydrogel beads. In particular, the research team has focused on the development of manufacturing methods that would allow us to make large amount of hydrogel beads in shorter amount of time. Also, the research team focused on developing the best way to condition the hydrogel beads with liquid bait to obtain the precise concentrations of the toxicant in the final product. The minimal amount of waste liquid generated from this manufacturing process was of our interest as well. The following work has been performed during the reporting period.

- Development of methods for producing large amount (several kilograms) of similarly-sized spherical biodegradable hydrogel (Ca-Alg) beads within short amount of time
- Development of methods of incorporating sugar-based liquid bait in to the manufactured hydrogel beads, resulting precise concentrations of sugar and boric acid in the final hydrogel bait
- Rehydration test of the hydrogel bait in the laboratory
- Field application test with a hand-held mechanical spreader

2. Milestones achieved during this reporting period:

Following milestones were achieved during the reporting period.

- Three-step and three-day manufacturing process has been established and streamlined. The first step (day 1) is the preparation of the alginate solution (1% alginate). The second step (day 2) is the formation of the hydrogels with an appropriate cross-linking time using a calcium chloride solution (0.5% CaCl<sub>2</sub>). The final step (day 2 – day 3, overnight) is the conditioning of the hydrogel to create hydrogel beads containing 25% sucrose and 0.5% boric acid (wt/vol).
- The manufacturing process provides quick production of the hydrogel beads (e.g., 1 -2 kg of hydrogel in 5 min) for conditioning. The conditioning process takes about 18 h. The manufacturing process also leaves very small amount of liquid wastes. In the final hydrogel product, each bead contained 0.14-0.17 ml of the liquid bait (Fig. 1).
- The manufacturing process resulted in precise concentrations of sugar (25%) and boric acid (0.5 %) in the final hydrogel bait.
- Based on the small field tests, we now know 1-2 kg of hydrogel bait can be easily applied with hand-held spreader (Fig. 2).
- Based on the small laboratory test, we now know the dry hydrogel beads can be rehydrated if there is enough amount of moisture provided (Fig. 3).

3. Any problems encountered in the performance of the work:

N/A

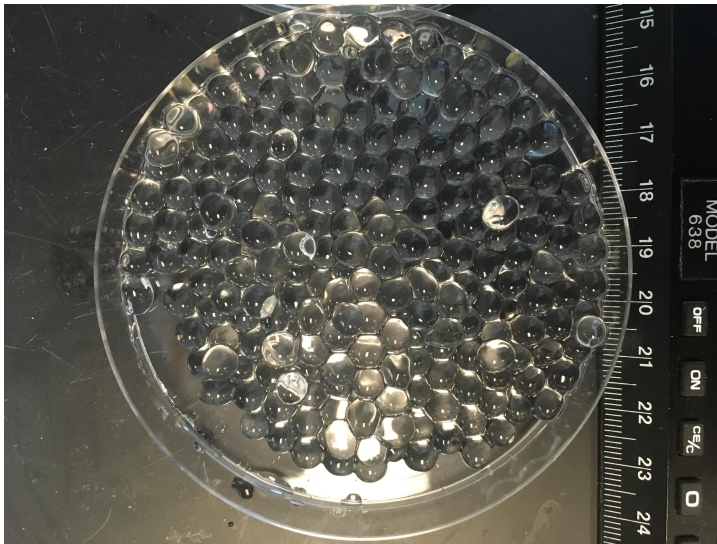
Based on my inquiry of the persons who manage the project, or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

\_\_\_\_\_  
Principal Investigator's Signature

4-30-2019

\_\_\_\_\_  
Date

**Figures**



**Fig. 1.** Final hydrogel baits manufactured using the modified methods. Each bait bead weighs 0.14-0.17 g.



**Fig. 2.** Testing with the hand-held spreader.



**Fig. 3.** Rehydration test with the final hydrogel bait. The hydrogel bait beads on the left are completely dried. When enough amount of water is provided, these dry hydrogel beads can be rehydrated (right), becoming palatable to foraging ants once again.



**University of California**  
**Agriculture and Natural Resources**

Cooperative Extension, Orange County

April 2019

Structural Pest Control Board  
2005 Evergreen Street, Ste. 1500  
Sacramento,  
California 95815

Dear Board Members,

Please find attached the progress report for the project "Investigation of Rodenticide Pathways in an Urban System Through the Use of Isotopically Labelled Bait". This project is still awaiting approval from the Institutional Animal Care and Use Committee at UC Merced. Funding will not be released for this project until the IACUC protocol has been approved by the committee.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Niamh Quinn", with a stylized flourish at the end.

Niamh Quinn  
Human-Wildlife Interactions Advisor



Progress Report:

An IACUC determination of need was submitted in September 2018. On receipt of a determination that this proposal required IACUC oversight, a full IACUC protocol was developed and submitted in Dec 2018. The IACUC was resubmitted with comments and updates following review. Currently the status of the IACUC protocol is *in review*. As mentioned, funding for this project will not be released until ACUC approval is received.

Given that the project has been significantly delayed, the collaborators have taken this time to review the protocol and ensure that when IACUC protocol is approved that all processes are already in place and can advance without any other further significant delay.

**Initial Progress Report**  
**Development and Evaluation of Bait Strategies for Control**  
**of Pest Yellowjackets in California**  
**Oct. 22, 2018 - April 19, 2019**

The project was initiated in August 2018 so that some initial trapping and baiting studies could be conducted prior to the end of the 2018 yellowjacket season. Sites were selected in southern California, San Francisco Bay Area, and Lake Tahoe because of a history with yellowjacket problems. Even though the grant was not funded until October, it was essential to start these trials and not lose an entire yellowjacket season. Traps and bait cages were constructed at UC Riverside and Placer Mosquito and Vector Control District and sent to Richmond for monitoring.

The baits were prepared at UC Riverside and sent by express mail to Richmond and Lake Tahoe for testing. The juices and liquid contents from cans of Swanson's White Premium Chunk Chicken Breast were strained through cheesecloth. The juice was diluted with water (1:1) to make 400 ml. Forty grams of Miracle Grow Crystals and an additional 200 ml of water were added to the mixture. The crystals and mixture were placed in the refrigerator and the hydrogel gels were allowed to grow for 48 hours. A 0.1% aqueous solution of dinotefuran (Alpine 40WSG, wt/vol) was prepared. Sufficient quantities of dinotefuran were added to 100 g of hydrogels to make baits containing 0.0025, 0.001, and 0.00075% active ingredient (wt/wt).

Salsa cups (59 ml) were loaded with the baits ( $\approx 30$  g), weighed, and a lid securely fastened to the cup. The baits were packed in a Styrofoam cooler with an ice pack and shipped in September 2018 to Lake Tahoe and Richmond to be tested.

**Placer Mosquito and Vector Control District**  
**Tahoe-area bait trials, 2018**

Seven different sites from the Lake Tahoe region were monitored for yellowjacket activity in September and October 2018. North Star Village and Serene Lakes were selected for the baiting trial. Five sites were monitored, but not baited (Table 1 and 2). Trapping was initiated on 9/12/2018 and terminated on 10/2/2018. Two traps baited with minced chicken and 2 traps baited with heptyl butyrate were placed at each site. Four species, *Vespula acadia*, *V. alascensis*, *V. atropilosa*, and *V. pensylvanica*, were collected in the traps. The traps with minced chicken attracted *V. alascensis* (n= 235) and *V. pensylvanica* (n= 219) over three trapping periods. Heptyl butyrate attracted four species, *V. acadia* (n = 57), *V. alascensis* (n= 14), *V. atropilosa* (n= 30), and *V. pensylvanica* (n= 1885) over three trapping periods. The monitoring traps with minced chicken caught 94.4% of the *V. alascensis* and 10.4% of the *V. pensylvanica* caught at the seven sites.

### *Trial 1 – North Star Village*

North Star Village is located about 3.8 miles from Lake Tahoe (39°16'29.68" N, 120°07'16.35" W, elevation 6381 ft.). The site is located within the Tahoe National Forest and is covered with pine trees and native shrubs. The trapping site is along a wooded border of a shopping and recreation area.

Ten monitoring traps were set up about every 30 meters at the site. Monitoring began on 9/12/2018 and the traps were collected 9/19/2018. Placer style traps baited with either chicken or heptyl butyrate were hung in trees to prevent bears and other animals from disturbing them (Fig. 1). Yellowjackets were removed from the traps and placed in containers to be identified to species (Fig. 2). Four species, *V. acadia*, *V. alascensis*, *V. atropilosa*, and *V. pensylvanica*, were collected in the traps.

On 9/19/2018, three bait cages with three bait cups ( $\approx 30$  g bait/cup), containing hydrogel bait with three different concentrations of dinotefuran (0.00075%, 0.001%, and 0.0025%) were hung in trees to prevent bears and other animals from disturbing them (Fig. 3). To control for water loss from the hydrogel baits, two evaporation controls were also hung from trees. A total of 5 cups of the untreated hydrogel were used for the evaporation control. A fine screen was wrapped around the bait cage to prevent yellowjackets from feeding on the control baits (Fig. 4). The bait and evaporation cages were removed after 24 hours.

The bait cups were returned to the laboratory and weighed. The cups in the evaporation checks lost an average of 6.6 g. The baits containing dinotefuran lost an average of 10.8 g (Fig. 5). The average consumption of all baits was 4.2 g/cup. There was no difference in amount of bait removed was apparent between the three concentrations of bait (ANOVA;  $F = 0.018$ ,  $df = 2,6$ ;  $P = 0.98$ ). A total of 37.8 g of bait was consumed.

On 9/21/2018, monitoring traps were returned to their original sites in the field. On 9/28/2018, the traps were collected and returned to the laboratory.

Although a reduction was observed in the average number of yellowjackets caught in a seven-day period after baiting compared to before baiting, the reduction was not significant (Fig. 6, mean 100.5 vs 33, Wilcoxon signed-rank test  $n = 10$ ,  $W = 10.5$ ,  $P = 0.1$ ).

### *Trial 2 – Serene Lakes*

Serene Lakes is a private lakeshore park and picnic area approximately 10 miles west of Truckee, CA (39°17'56.62" N, 120°22'59.45" W, elevation 6907 ft). Located in the Tahoe National Forest the forests are populated by tamarack, cedar, white fir, and lodge pole pines (Fig. 7).

Thirty monitoring traps were set up about every 30 meters at the site. Monitoring began on 9/20/2018 and the traps were collected 9/27/2018. Traps were set in small trees boarding the lake. Placer style traps baited with either chicken or heptyl butyrate were hung in trees to prevent bears and other animals from disturbing them. Yellowjackets were removed from the traps and placed in containers to be identified to species. Four species, *V. acadia*, *V. alascensis*, *V. atropilosa*, and *V. pensylvanica*, were collected in the traps.

On 9/27/2018, four bait cages with three bait cups ( $\approx 30$  g bait/cup), containing hydrogel bait with three different concentrations of dinotefuran (0.00075%, 0.001%, and 0.0025%) hung in trees to prevent bears and other animals from disturbing them. To control for water loss from the hydrogel baits, two evaporation controls were also hung from trees. A total of 5 cups of the untreated hydrogel were used for evaporation controls. A fine screen was wrapped around the bait cage to prevent yellowjackets from feeding on the control baits. The bait cages were removed after 48 hours.

The bait cups were returned to the laboratory and weighed. The cups in the evaporation checks lost an average of 8.0 g (Fig. 8). The baits containing dinotefuran lost an average of 12.2 g. The average consumption of all baits was 4.2 g/cup (Fig. 8). There was no difference in amount of bait removed was apparent between the three concentrations of bait (ANOVA;  $F = 4.35$ ,  $df = 2,9$ ;  $P = 0.32$ ). A total of 50.4 g of bait was consumed.

On 9/28/2018, monitoring traps were placed in their original position. The traps were collected on 10/5/2018 and returned to the laboratory.

There was a significant reduction in the numbers of yellowjackets trapped in a 7-day period after baiting than before (Fig. 9, mean 121.5 vs 20.3, Wilcoxon signed-rank test,  $W = 6$ ,  $n = 10$ ,  $P < 0.05$ ).

Table 1. Monitoring of yellowjacket foragers at unbaited sites. The yellowjacket trap counts did not change significantly (see table below, Wilcoxon's signed-rank test,  $W = 3.5$ ,  $n = 6$ ,  $P > 0.2$ ).

| Location                             | Data Collected<br>17-Sep-18 | Data Collected<br>25-Sep-18 | %<br>change |
|--------------------------------------|-----------------------------|-----------------------------|-------------|
| Serene Lakes                         | 539                         | 445                         | -17.44      |
| Alpine Meadows Water District        | 135                         | 49                          | -63.70      |
| Lahontan Club                        | 622                         | 430                         | -30.87      |
| North Tahoe Fire Protection District | 25                          | 61                          | 144         |
| Rideout Community Center             | 61                          | 127                         | 108.20      |
| Tahoe Vista Rec Park (Kim)           | 219                         | 153                         | -30.14      |
|                                      |                             | Avg. % change               | 18.34       |

Table 2. Monitoring of yellowjackets at unbaited sites. The yellowjacket trap counts did not change significantly (Wilcoxon signed-rank test,  $W = 5$ ,  $n = 5$ ,  $P > 0.2$ ).

| Location                                | Data Collected<br>25-Sep-18 | Data Collected<br>2-Oct-18 | %<br>change |
|---|-----------------------------|----------------------------|-------------|
| Alpine Meadows Water District           | 49                          | 132                        | 169.39      |
| Lahontan Club                           | 430                         | 225                        | -47.67      |
| North Tahoe Fire Protection<br>District | 61                          | 71                         | 16.39       |
| Rideout Community Center                | 127                         | 96                         | -24.41      |
| Tahoe Vista Rec Park (Kim)              | 153                         | 105                        | -31.37      |
|   |                             | Avg. change (%)            | 16.46       |

Fig. 1. A Placer-style yellowjacket monitoring trap in the field. These traps may be baited with chicken or heptyl butyrate.



Fig. 2. Yellowjackets collected from monitoring traps before baiting.



Fig. 3. A bait cage deployed in the field. At the Tahoe sites, the cages were set higher in trees (~10 feet) to prevent damage from bears.



Fig. 4. An evaporation test cage with screen to exclude yellowjackets (left) and a bait cage to allow yellowjackets to enter and feed on the test bait (right).



Fig. 5. The average bait consumption ( $\pm$  SE) by yellowjackets at North Star Village. The evaporation check is the 0 % toxicant hydrogels.

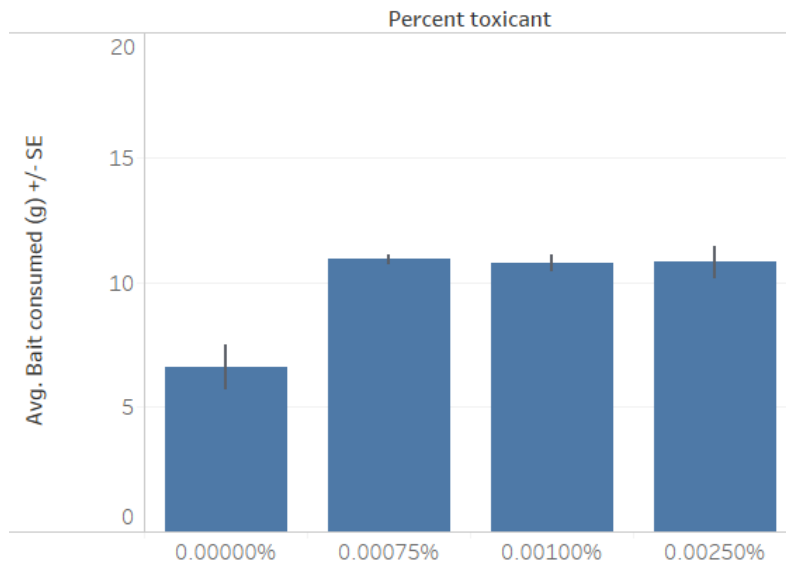


Fig. 6. The average number ( $\pm$  SE) of yellowjackets /trap/7 days at North Star Village 7 days before and after baiting with dinotefuran.

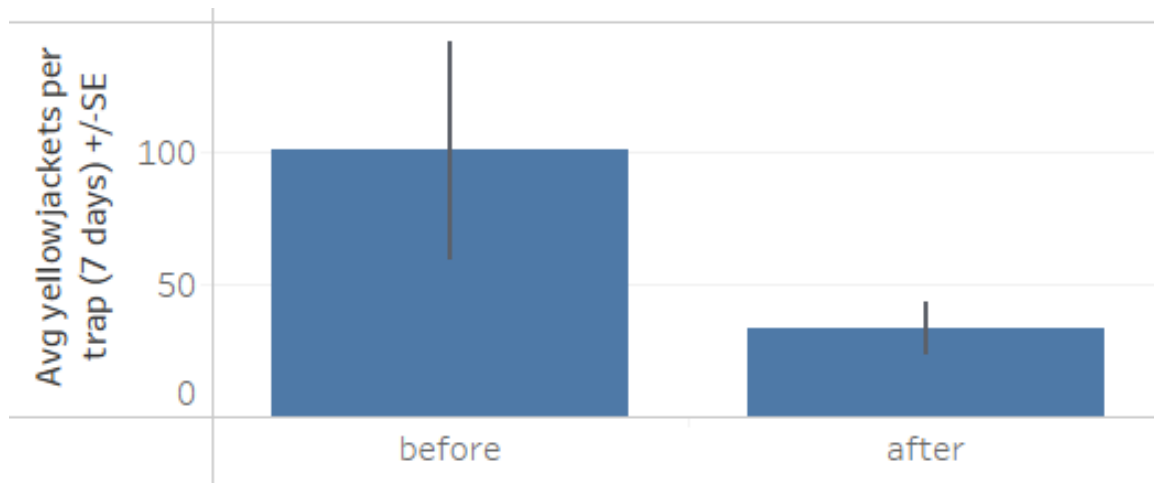


Fig. 7. An overall view of the Serene Lakes site. Traps were set in a row of pine trees bordering a lawn and picnic area overlooking a lake.



Fig. 8. The average bait consumption ( $\pm$ SEM) by yellowjackets at Serene Lake. The evaporation check is the 0 % toxicant hydrogels.

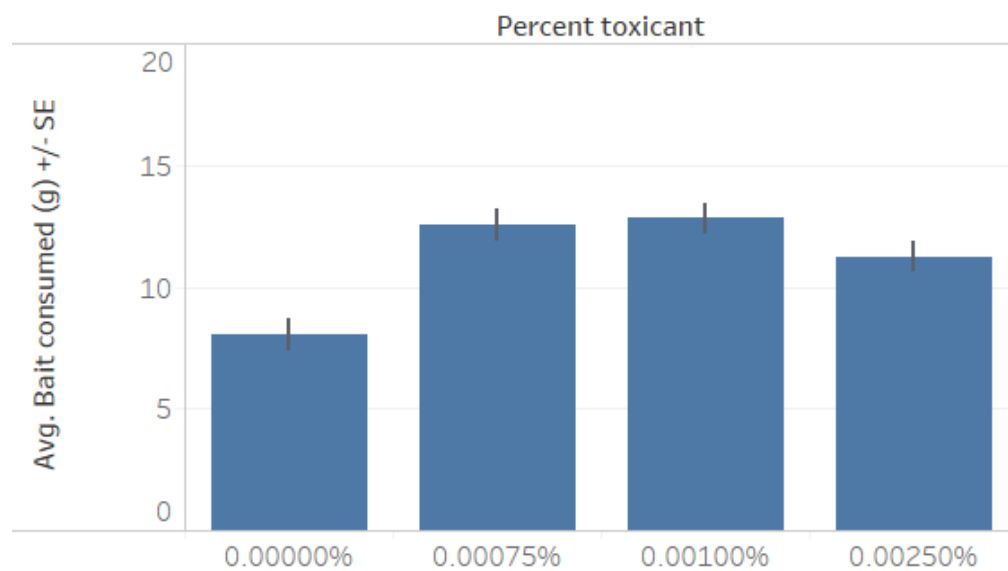
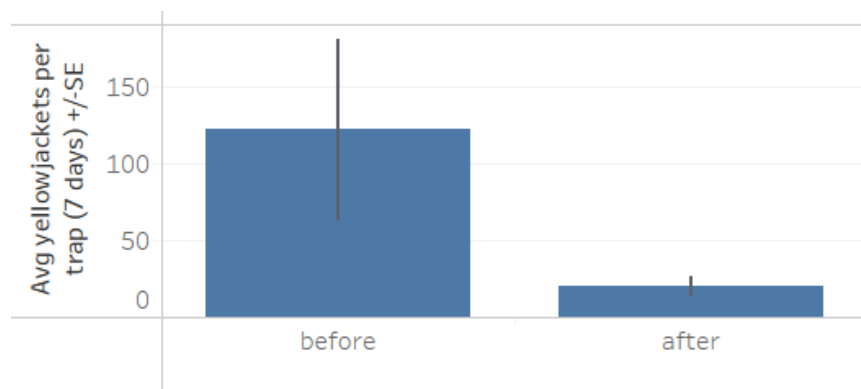


Fig 9. The average number of yellowjackets ( $\pm$ SEM) /trap/7 days at Serene Lake 7 days before and after baiting with dinotefuran.



## UC Berkeley Richmond Field Station Report

The UC Berkeley Richmond Field Station is approximately 6 miles northwest of the main Berkeley campus. It consists of 170 acres of which 100 acres are uplands and the remaining acreage is marsh or bay lands. This area is a classical natural coastal grasslands environment.

Two yellowjacket trap lines (transects) were maintained from 8/29/2018 to 10/1/2018 with three trapping periods (Fig. 10). Baits were prepared in a hydrogel matrix that foragers cut into pieces with their mandibles and returned to the nest (Fig. 11). The East Transect was baited on 9/5/2018 and again on 9/24/2018. The baits were placed out at bait cages (1-3) and were returned to the laboratory after 24 hours.

To determine the amount of water lost from the hydrogel baits, pre-weighed cups of bait were placed in bait cages covered with fine screen (Fig. 12). The bait cups were returned to the laboratory and weighed after 24 hours, the difference being the amount of water lost.

## Overall Findings

The only species collected in the traps were the western yellowjacket, *Vespula pensylvancia*. The trap catches declined significantly in the East Transect during both sampling periods after baiting. The West Transect (approximately 1500 feet from the East Transect) was kept un-baited to serve as the seasonal check (control). Trap catches in this un-baited transect did not significantly decrease over our three sampling periods (Wilcoxon's signed-rank test). In total, wasp catch density was decreased by 78% in the East Transect while wasp catch density in the West Transect decreased by only 26%, perhaps in response to decreasing daily temperatures and photoperiods.

With the dinotefuran concentration choice tests, there was no significant difference in the amount of each concentration of bait consumed.

### **Trial 1: Bait Applied 9/5/2018**

The dinotefuran hydrogel bait was clearly removed by wasps. We watched foraging *V. pensylvanica* workers removing large gobs of bait and flying away just moments after placing out the bait cages. Evaporation of water from the hydrogels was significant with a mean 5.72 g loss in weight ( $\approx 19\%$ ) during the 24-h baiting period.

Accounting for evaporation loss of water from the hydrogel baits, the mean amount of bait removed from each cup was 1.88 g (0.0025% formulation), 2.25 g (0.001% formulation), and 3.15 g (0.00075% formulation). There was no significant difference in the amount of each concentration of bait removed (ANOVA;  $F = 3.25$ ,  $df = 2,6$ ;  $P = 0.11$ ).

The yellowjacket trap counts along the East transect (baited) were significantly lower 4 days after baiting ( $W = 46$ ,  $Z = 2.02$ ,  $P = 0.042$ ). The trap counts 21 days after baiting were 78% less and significantly lower than trap counts prior to baiting ( $W = -66$ ,  $Z = -2.96$ ,  $P = 0.001$ ). Along the West Transect (control), there was no significant difference in the trap counts before and 4 days after baiting ( $W = -19$ ,  $Z = -1.16$ ,  $P = 0.301$ ). Similarly, there was no change in the trap counts on September 26 ( $W = -11$ ,  $Z = -0.678$ ,  $P = 0.570$ ).

### **Trial 2: Bait Applied 9/24/2018**

During shipping and handling of the package containing baits from UCR, some bait cups were spilled. Additionally, there were labeling and / or data entry errors associated with the bait cup initial weights, as received from UCR. These problems reduced our sample size but may not have affected the efficacy of this trial. As during Trial 1, wasps were noted to be visiting bait shortly after deployment, visibly removing baits. We observed markedly less evaporation than we did during trial 1 (3.36 g vs 5.72 g).

Due to errors noted above, one treatment and several replicates were lost from this trial. There was no detectable difference in the amount of each bait concentration consumed, even though the statistical power was severely restricted due to the limited sample size.

### **2018 findings (data from both trials combined)**

As explained above, the West Transect at the Richmond Field Station was left untreated as a seasonal density check for efficacy comparisons, while both bait trials took place along the East Transect. To interpret monitoring data, consider these three monitoring periods:

1. August 21 – September 4, before bait trial 1, represents baseline summer density
2. September 10 – September 24: after bait trial 1, immediately before bait trial 2
3. September 26 – October 1: after bait trials 1 and 2, autumn sampling period

Wasp density declined steadily along the East Transect (Fig. 13).

In contrast, wasp density remained similar throughout the study along the West Transect, with only a slight decrease observed during the autumn sampling period (Fig. 14). Wasp density was initially higher along the East Transect, before bait trial 1. Following bait trial 1, however, and for the remainder of the 2018 study, wasp density along the East Transect (the baited transect) was lower than in the West Transect.

Fig. 10. Field site at the UC Berkeley Richmond field station with West and East Transects.

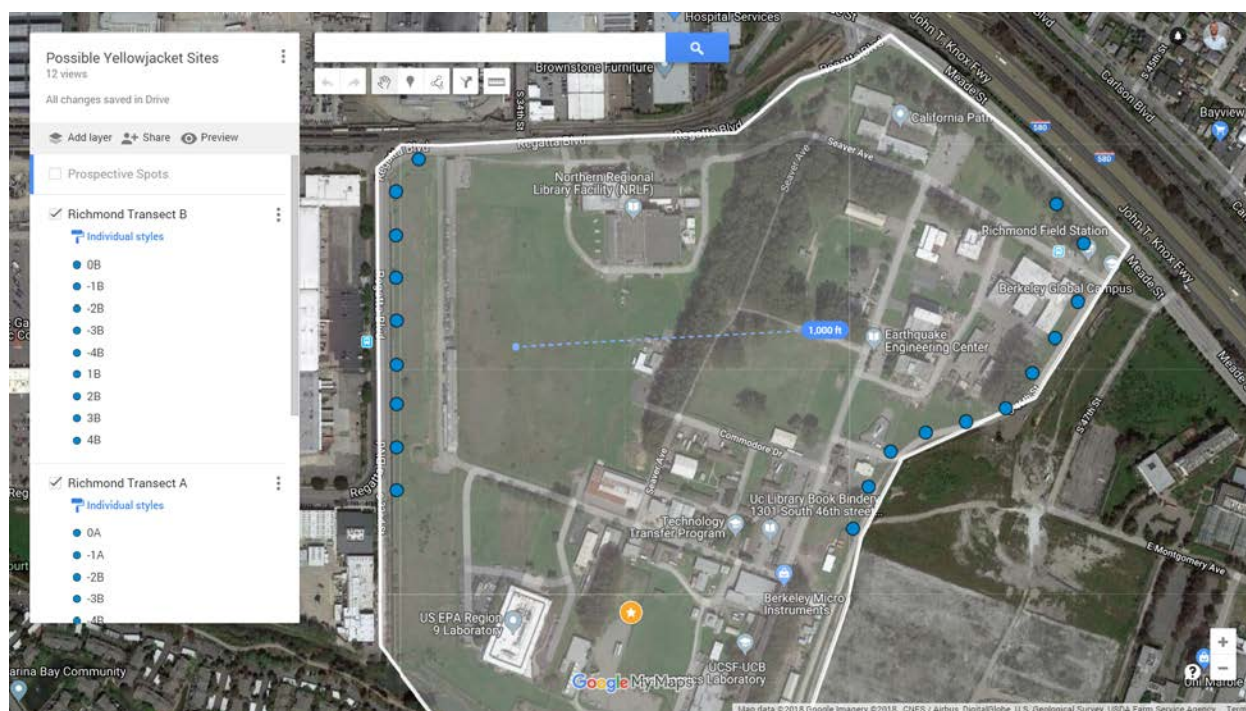


Fig. 11. Yellowjacket forager removing the hydrogel bait containing dinotefuran.



Fig. 12. Bait cages and the evaporation checks.



Fig. 13. The number of yellowjackets/trap/day on the West Transect after baiting.

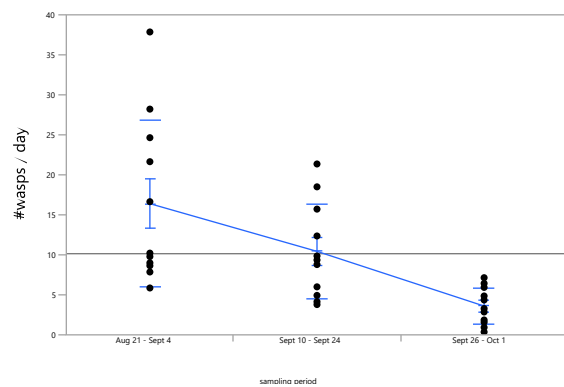
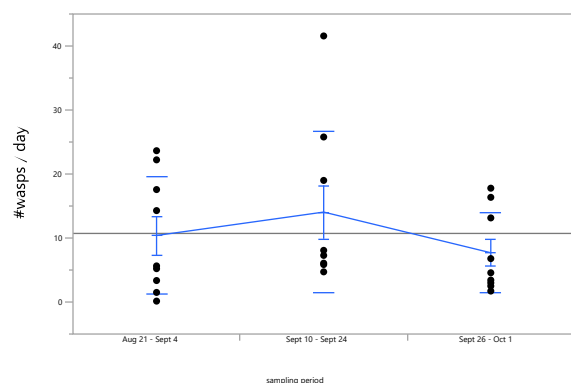


Fig. 14. The number of yellowjackets/trap/day on the East Transect.



## University of California Riverside Report

Irvine Regional Park (33.7963° N, 117.7526° W) is a multiple-use park ( $\approx 0.65 \text{ km}^2$ ) surrounded by undeveloped wilderness areas composed primarily of a riparian, coastal sage scrub, and oak woodland plant community. In October 2017, there was an extensive wildfire that burned much of the surrounding native habitat, but the park has remained open.

### Monitoring

The foraging activity of yellowjackets was measured using an active monitor with a chemical lure, heptyl butyrate (Landolt et al. 2003). This volatile compound is highly attractive to western yellowjacket workers and queens (Simmons 1991). Modified wet traps (Reierson et al. 2008) provisioned with an 8-ml vial containing about 7.2 ml heptyl butyrate were used (Fig. 15). Wasps that entered the trap through 5 side ports were funneled into a bottom jar containing a solution of antifreeze coolant (propylene glycol, Sierra® Antifreeze/Coolant, Old World Industries, Inc., Northbrook, IL) diluted with water (70:30, vol:vol). The coolant solution was effective in killing and preserving the insects. The monitor traps were hung under trees and bushes about 0.5-1.5 m off the ground. A total of 56 monitor traps were used for a total of 4 different monitoring sessions conducted between 9-10-2018 and 10-29-2018 (Fig. 16). The length of each monitoring session was 14 days. By dividing the number of wasps collected by the number of days in the monitoring session, the number of yellowjackets trapped per day was obtained for each trap.

### Results

Only *V. pensylvanica* were trapped from 8-27-2018 until 10-29-2018. By 10-29-2018 nearly 100% of the 56 traps had caught at least 1 yellowjacket and a total of 350 yellowjackets were caught (Fig. 17). Unfortunately, the highest trap catch was only 2.5 yellowjackets per trap per day. This number did not reach the threshold of 10 yellowjackets/trap/day to initiate a baiting trial. Clearly the wildfire had a dramatic effect on the numbers of yellowjackets foraging in the park. Consequently, there were no baiting trial in September.

### References

- Landolt, P. J., H. C. Reed, and D. J. Ellis. 2003. Trapping yellowjackets (Hymenoptera: Vespidae) with heptyl butyrate emitted from controlled-release dispensers. *Fla. Entomol.* 86: 323-328.
- Reierson, D. A., M. K. Rust, and R. S. Vetter. 2008. Traps and protein bait to suppress populations of yellowjackets (Hymenoptera: Vespidae), pp. 267–274. In *Proceedings, the Sixth International Conference on Urban Pests*, 13–16 July 2008, Budapest. OOK-Press Kft., Hungary.
- Simmons, E. S. 1991. Yellowjacket abatement in California parklands. Report to California Department of Parks and Recreation 17, Pest Management Series. Sacramento, USA. 39 pp.

Fig. 15. Modified wet trap for yellowjackets with heptyl butyrate attractant.



Fig. 16. Irvine Regional Park and the yellowjacket monitoring sites 2018.

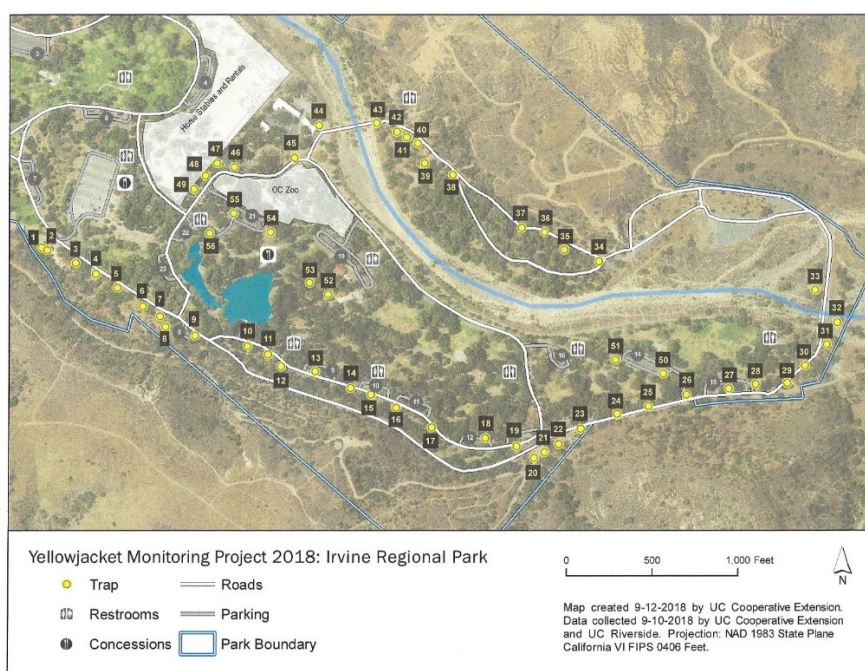
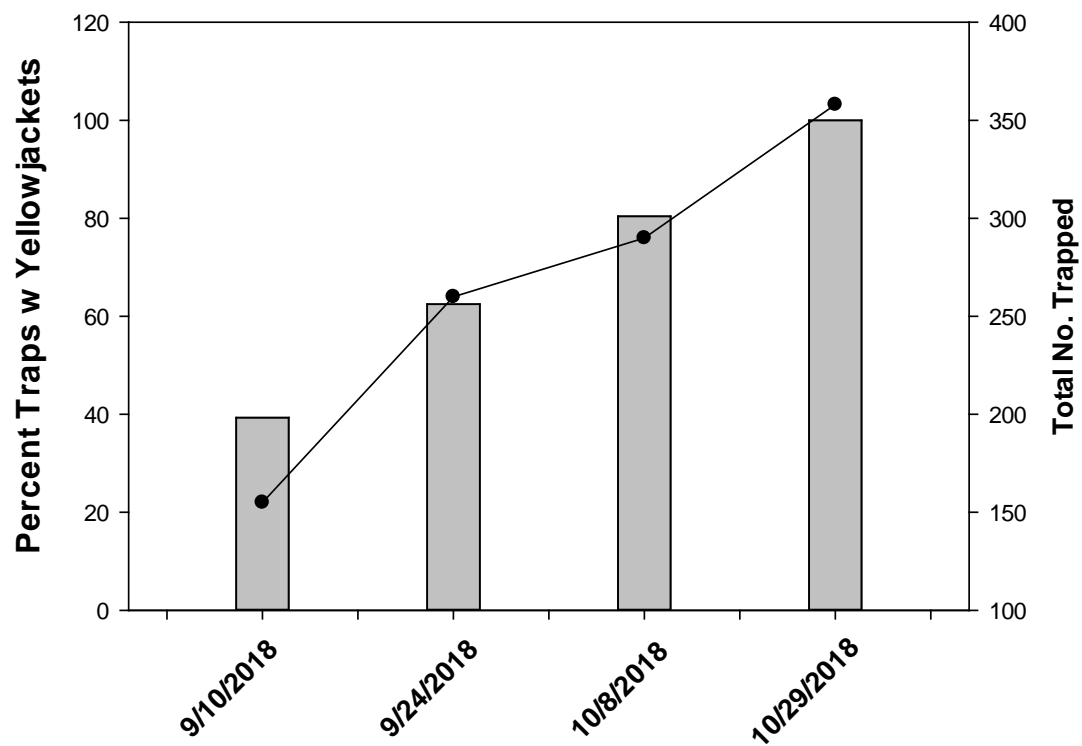


Fig. 17. Yellowjacket trapping data from Irvine Regional Park in 2018. Bars represent the percentage of traps with yellowjackets. The line represents the total number of yellowjackets trapped for 56 traps.



**Evaluation of bait station system efficacy  
for reduced-risk subterranean termite management in CA**

**Initial Progress Report**

Period Covered: October 1, 2018 – March 31, 2019

Project Team: Andrew Sutherland, Siavash Taravati, UCCE staff members, collaborating pest control operators, collaborating property owners, collaborating laboratories

This project aims to evaluate the efficacy of three CA-registered termite bait systems against subterranean termites, in collaboration with pest control operators and property owners, at 15 single-family homes in the San Francisco Bay Area and the Los Angeles Basin. This project also aims to increase our knowledge about seasonal and spatial effects on subterranean termite incidence within bait stations in CA. Progress towards these objectives, as well as towards regular administration of this project, is reported below, following the objectives, tasks, and deliverables identified in the Scope of Work included in the successful proposal for funding.

**Objective 1. Conduct collaborative field research at participating single-family homes to evaluate bait system efficacy:**

We have completed some initial work towards this objective, but we will not meet the due dates proposed for several key tasks, as explained below. We have requested a one-year no-cost extension of this project due to projected delays in progress towards this objective.

**Task 1.1:** Identify all 15 participating homes, assemble all necessary supplies and equipment, evaluate monitoring options, decide on specific monitoring protocols, and negotiate any project subcontracts.

We have partnered with Western Exterminator and Omega Termite & Pest Control to locate participating homes. Western has experience installing and servicing the Sentricon Always Active system and has agreed to participate at 3 homes in the SF Bay Area and 2 homes in the LA Basin. Omega has experience installing and servicing the ATBS-Trelona system and has

agreed to participate at 3 homes in the SF Bay Area. Processes have begun to establish Western and Omega as vendors within the University of California business offices, enabling payment for their services. At this point in the project, we have not identified the collaborating pest control operators that will provide installation and service of ATBS-Trelona systems at 2 homes in the LA Basin and of the Exterra system at 3 homes in the SF Bay Area and 2 homes in the LA Basin. We have had several operators interested in the project who may decide to participate in the near future. A key potential collaborating operator, with extensive bait system experience and who was part of this project's initial proposals, has retired and sold their business to another operator. This new operator has been contacted but has shown limited interest and may have discontinued the company's bait services for subterranean termites. Several operators have expressed skepticism about the utility of bait systems in CA or within their specific business models, usually based on negative experiences with systems registered decades ago. Because of these widespread sentiments, we believe that this project is vitally necessary to evaluate the field efficacy of newer bait systems and to extend the results to the industry.

After identifying collaborating operators, we have encountered another process hurdle: finding homes that meet our project criteria. For this project, we are seeking homes where termite activity has been confirmed near the structure but not within the structure. Structures with termites actively consuming structural wood will likely require local termiticide treatment to immediately arrest the structural damage being incurred; previous research shows that it may take months for subterranean termites to find and access baits. Furthermore, we are seeking homes where no perimeter (liquid) termiticide treatments have been made within the previous five years, since we know that these treatments may provide years of residual activity, confounding any observed control success we might attribute to the bait systems. For our collaborating pest control operators, we have created guidelines for site selection that outline these criteria (see Appendix 1). To date, we have only identified one participating home, in Hayward (SF Bay Area), with Omega. We originally proposed to identify all 15 sites before March 31, 2019, so we have already missed this deadline. We have communicated regularly with technical representatives and inspectors from Western and Omega about finding and evaluating prospective homes, with few leads. Largely, these operators get called when termite infestations are detected within structures, actively consuming wood. As discussed above, such homes are undesirable for this study. We are working with operators on strategies and opportunities for finding candidate homes, such as inspections triggered by swarms, foragers observed near structures in non-structural wood, and the use of monitoring devices to detect termite activity. Several meetings via phone and Zoom video conference have been held, and one in-person meeting was held between Siavash Taravati and Western in the LA Basin.

We have assembled all supplies and equipment necessary for monitoring and data collection. As collaborating pest control operators and participating homes are identified, supplies and equipment required for bait installation and service will be provided by manufacturers.

Monitoring of termite activity will be conducted using Exterra / Isopthor EZE stations containing wood monitoring blocks (Figure 1) installed immediately adjacent to bait stations. Participating homes will be visited quarterly (about once every 90 days following installation) to open these

monitoring stations, record termite incidence / number, and to collect voucher specimens for DNA analysis. Additionally, bait stations will be serviced every six months by operators, according to product label, presenting opportunities for data collection. During these six-month bait station access dates, we will measure termite incidence and number, bait consumption, and collect additional termite specimens for DNA analysis.



Figure 1. Exterra / Isophor EZE station containing wood monitoring blocks.

As mentioned above, Western and Omega are being established as vendors within the UC system. A similar process has been completed with the New Orleans Mosquito, Termite, and Rodent Control Board, who will serve as a vendor for laboratory services (DNA analysis of collected specimens).

**Task 1.2:** Install bait stations at all participating homes.

One participating home has been identified, in Hayward (SF Bay Area). The ATBS-Trelona system was installed there by Omega on March 1, 2019. An associated system of monitoring stations was installed by Andrew Sutherland, also March 1, 2019. We initially proposed to install systems at all participating homes before June 30, 2019. We will likely not meet this deadline.

**Task 1.3:** Visit each participating home every three months, collecting data, servicing stations, and monitoring as detailed above. Perform laboratory work, as detailed above, to determine colony presence and identity during study.

No work has yet been completed towards this task, though an initial visit was scheduled for the Hayward site on June 3, 2019. Voucher specimens of *Reticulitermes* foragers were collected at the site January 22, 2019, have been curated, and will be sent for DNA analysis soon. Data tables and collection sheets have been created for all data collection activities. Deadlines proposed for deliverables associated with this task will likely not be met, due to delays in Task 1.1.

**Task 1.4:** Analyze and summarize data, publish all reports and articles, perform all outreach and extension activities.

No work has yet been completed towards this task, though project outreach has already begun, at UC Riverside's Urban Pest Management Conference and PCOC District meetings, to aid in the identification of collaborating operators and participating homes. Deadlines proposed for deliverables associated with this task will likely not be met, due to delays in Task 1.1.

**Objective 2. Conduct observational and manipulative research at UC field station(s) to describe colony attributes, seasonal phenology in CA, and determine time-to-attack for registered bait systems:**

We have made steady progress towards this objective, completing and initiating several key tasks, as detailed below.

**Task 2.1:** Identify study sites, detect and delimit colonies (based on monitoring of swarms and activity associated with wooden monitors), identify and characterize colonies using DNA analysis of voucher specimens.

We will achieve this objective through work conducted at the UC Berkeley Richmond Field Station. The Station is approximately 6 miles northwest of the main Berkeley campus, consisting of 170 acres of coastal marsh land, forested uplands, modern and historic wooden structures of various sizes, parking lots, and other hardscapes (Figure 2). Swarms of *Reticulitermes* spp. occurred in the SF Bay Area on November 21, 2018, though this was the day before Thanksgiving Day, making observations and records of swarms difficult for the project team (we were all on vacation). Inspections of wooden debris (Figure 3) in several candidate areas at the Station were conducted in January 2019. Collections of voucher specimens (foraging termite workers) were conducted, DNA analysis was performed (see Appendix 2), and 10 distinct *Reticulitermes* colonies were identified. Of these, 5 colonies were selected as study colonies, to be associated with installations of experimental bait station arrays. We have completed this task.

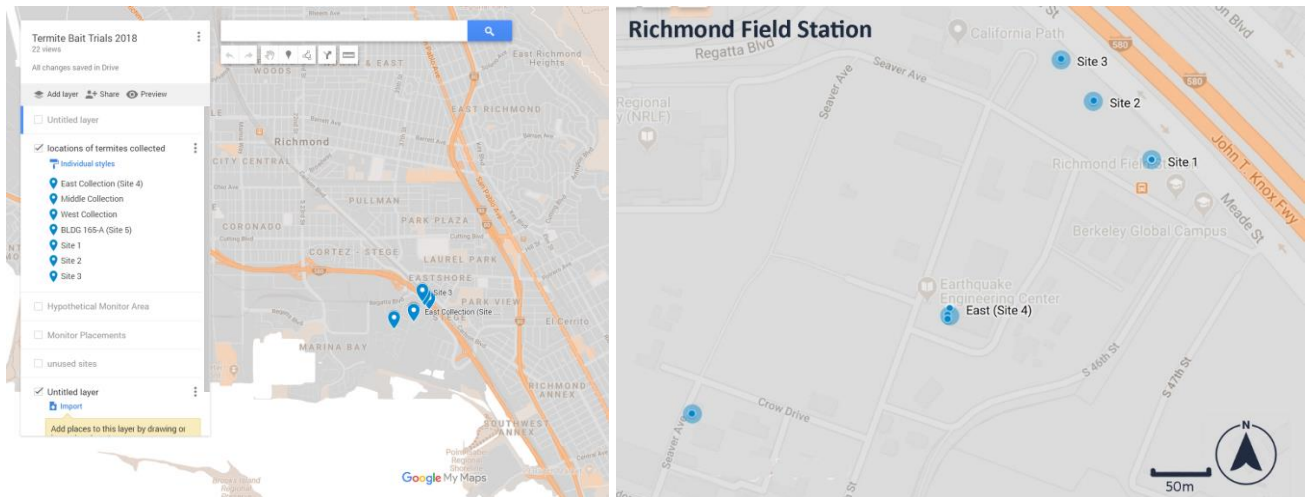


Figure 2. The blue markers show the location of five selected *Reticulitermes* spp. termite study colonies, at the UC Berkeley Richmond Field Station (two geographic scales shown here).



Figure 3. A possible brood chamber of *Reticulitermes* spp. termites, with workers of various sizes and apparent secondary reproductives, found within wooden landscape edging at the UC Berkeley Richmond Field Station.

## Task 2.2: Install station arrays.

We installed monitoring stations (as described above) at the locations where voucher specimens were collected in association with our five selected colonies for study, as mentioned above, serving as the centers of our experimental arrays. We procured bait stations and bait matrices without active ingredients ('inactive' bait) from Corteva (Sentricon system), BASF (ATBS-Trelona system) and Ensystex (Exterra system) during January – March 2019. We then installed these stations (see Figure 4), containing the inactive baits, within these five arrays along three

distance radii (1m, 3m, and 5m from array center) on March 25, 2019, for a total of 45 stations (3 bait systems x 5 arrays x 3 distance radii). One monitoring station was also installed at each distance radius at each array, for a total of 15 (5 arrays x 3 distance radii). We plan similar installations for mid-June 2019, mid-September 2019, and mid-December 2019, comprising four installation seasons.



Figure 4. Three registered bait station systems, with “inactive” bait, were installed at the UC Berkeley Richmond Field Station as part of Objective 2. These stations will be monitored for two years, recording time-to-attack by *Reticulitermes* termites as a factor of installation season and distance from recorded termite activity.

**Task 2.3:** Collect all data.

No work has yet been completed towards this task, though the first data collection event has been scheduled for May 29, 2019.

**Task 2.4:** Analyze and summarize data, publish all reports and articles, perform all outreach and extension activities.

No work has yet been completed towards this task, though project outreach has already begun, at UC Riverside’s Urban Pest Management Conference and PCOC District meetings.

**Objective 3. Grant Administration:** Conduct general grant administration: meetings, progress reports, invoices, presentations, and final report as required.

We have completed tasks and met deadlines associated with this objective.

**Task 3.1.** Project meetings.

As noted above, project team members have met several times via phone and Zoom video conference as well as in-person. We will continue to meet as necessary.

**Task 3.2.** Project reports.

This report serves as the first semi-annual progress report, partially completing this task. Additional reports will be provided semi-annually, annually, and as requested.

**Task 3.3.** Board meeting presentations.

Attendance and presentation at one Board meeting per year is required. Project team members will report at a future Board meeting before September 30, 2019 and once per year afterwards.

## Appendix 1



# University of California Agriculture and Natural Resources



### Dear Cooperating Pest Control Operators,

As part of a new project, recently funded by California's Structural Pest Control Board, we will be demonstrating the effectiveness of bait systems for use against subterranean termites. For field sites, **we are looking for 15 single-family homes (or similar structures) in the San Francisco Bay Area and the Los Angeles Basin where we can evaluate bait systems over a two-year period.** As autumn rains approach, we know you'll soon be getting calls from anxious property owners who have seen termite swarms on or near their properties. Some of these structures may be perfect for our demonstration. Your participation in this project may result in new customers, since professional baiting programs usually involve long term contracts or service agreements. Manufacturers of three bait systems (Sentricon, Trelona ATBS, Exterra) have agreed to provide the supplies and training you'll need to use their systems within this project. There are project funds available to your company that will enable you to offer baiting services for free or at a reduced cost to your customer; this may help with recruitment of participating property owners.

#### **What makes a good site for this work? Ideally, participating structures will have:**

- a 1000 – 3000 sq. ft. area (footprint),
- measurable subterranean termite activity near (within one meter from) the foundation,
- no active structural infestations (no observations of structural wood being accessed and consumed),
- no record of liquid termiticide application during the previous five years,
- access to soil around most of the structure's perimeter,
- owners aware of and interested in the baiting process.

Since bait stations may require months in the ground before termites find them and months afterwards to eliminate large colonies, structures with active infestations (wood being accessed and consumed) should not be considered and may best be served by local treatments. Structures where swarms have occurred within one meter of the foundation or where termite activity (on wood monitoring devices) has been demonstrated within one meter of the foundation are best for this project, since we hope to show that baiting can protect homes and other structures from future infestations over the two-year project period. Liquid termiticides; such as Termidor, Premise, Altriset, Transport, Prelude, and others; may remain active in the soil for years and may confound our results, so structures receiving these treatments in the previous five years should not be considered. Bait stations will be installed, on average, every 15 feet along the structure's perimeter. Soil access for this is preferred, to avoid the need for coring of hardscapes.

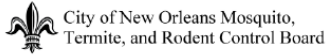
**We are looking for five structures to represent each of the three bait systems. If you think your company can provide one or more participating structures, then please contact me to set up an inspection and discuss project details. We would like to have all bait stations installed before March 31, 2019.**

**Andrew M. Sutherland, Ph.D., BCE**  
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[amsutherland@ucanr.edu](mailto:amsutherland@ucanr.edu)

A handwritten signature in black ink, appearing to be 'AS', followed by a horizontal line.

## Appendix 2



DNA Analysis and Colony Delineation Results  
Richmond Field Station Submitted by: Andrew Sutherland

Principal Investigator: Carrie Cottone

Site: Richmond  
Date: 13-Mar-2019  
Species: *Reticulitermes hesperus*

Alleles for each individual are listed

Color coding represents samples from the same colony

|               |    | Individual | West Side A<br>07-Jan-2019 | Middle B<br>07-Jan-2019 | East Side C<br>07-Jan-2019 | North West<br>Corner 07-Jan-2019 | West Side<br>07-Jan-2019 | Site A<br>07-Jan-2019 | Site B<br>07-Jan-2019 | Site C<br>07-Jan-2019 | Site D<br>07-Jan-2019 | Front Stump<br>(site 1) 16-Jan-2019 | Bird Box Stump<br>(site 2) 16-Jan-2019 | Corner Stump<br>(site 3) 16-Jan-2019 | Old Roots (site 4)<br>16-Jan-2019 |
|---------------|----|------------|----------------------------|-------------------------|----------------------------|----------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------------------|--|--------------------------------------|-----------------------------------|
| STUDY CODE    |    |            | RFS-B420A-01               | RFS-B420B-01            | RFS-B420C-01               | RFS-B165-01                      | RFS-B155-01              | RFS-B180A-01          | RFS-180B-01           | RFS-B180C-01          | RFS-B180D-01          | RFS-GS1-01                          | RFS-GS2-01                             | RFS-GS3-01                           | RFS-GS4-01                        |
| SAMPLE ID     |    |            | 5                          | 6                       | 7                          | 8                                | 9                        | 10                    | 11                    | 12                    | 13                    | 14                                  | 15                                     | 16                                   | 17                                |
| Locus Rf 6-1  | 1  | 140/131    | 146/137                    | 140/131                 | 137/131                    | 146/137                          | 137/131                  | 137/131               | 137/131               | 137/131               | 137/131               | 149/140                             | 143/134                                | 140/131                              | 137/131                           |
|               | 2  | 140/131    | 140/131                    | 146/137                 | 137/131                    | 146/134                          | 137/131                  | 137/131               | 137/131               | 137/131               | 137/131               | 149/140                             | 140/131                                | 140/131                              | 146/137                           |
|               | 3  | 140/131    | 146/137                    | 140/131                 | 137/131                    | 146/137                          | 137/131                  | 143/134               | 146/137               | 137/131               | 149/140               | 140/131                             | 140/131                                | 140/131                              | 146/137                           |
|               | 4  | 140/131    | 140/131                    | 146/137                 | 137/131                    | 146/137                          | 137/131                  | 143/134               | 146/137               | 137/131               | 149/140               | 143/134                             | 137/131                                | 137/131                              | 137/131                           |
|               | 5  | 140/131    | 140/131                    | 140/137                 | 140/131                    | 146/134                          | 137/131                  | 143/134               | 146/137               | 146/137               | 149/140               | 143/134                             | 140/131                                | 146/137                              | 146/137                           |
|               | 6  | 146/137    | 146/137                    | 146/137                 | 140/131                    | 146/134                          | 137/131                  | 143/134               | 137/131               | 137/131               | 149/140               | 140/131                             | 137/131                                | 137/131                              | 137/131                           |
|               | 7  | 140/131    | 146/131                    | 146/137                 | 137/131                    | 146/134                          | 137/131                  | 137/131               | 146/137               | 146/137               | 149/140               | 143/134                             | 137/131                                | 137/131                              | 137/131                           |
|               | 8  | 140/131    | 140/131                    | 140/131                 |                            | 137/131                          | 137/131                  | 143/131               | 146/137               | 146/137               | 149/140               | 137/131                             | 140/131                                | 137/131                              | 137/131                           |
|               | 9  | 140/131    | 140/131                    | 140/131                 |                            | 146/134                          |                          | 143/131               | 146/137               | 146/137               | 149/140               | 140/131                             | 140/131                                | 137/131                              | 137/131                           |
|               | 10 | 140/131    | 146/137                    | 146/131                 | 137/131                    | 137/131                          |                          | 143/131               | 137/131               | 146/137               | 149/140               | 140/131                             | 140/131                                | 140/131                              | 146/137                           |
| Locus Rf 15-2 | 1  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 211/208                  | 211/211               | 211/211               | 211/211               | 211/211               | 211/208                             | 211/208                                | 211/211                              | 211/208                           |
|               | 2  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 211/208                  | 211/211               | 211/208               | 211/211               | 211/211               | 211/208                             | 211/208                                | 208/208                              | 211/208                           |
|               | 3  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 208/208                  | 211/211               | 208/208               | 211/211               | 211/211               | 211/208                             | 208/208                                | 211/208                              | 211/208                           |
|               | 4  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 208/208                  | 211/211               | 211/211               | 211/211               | 211/211               | 211/208                             | 211/208                                | 211/211                              | 211/208                           |
|               | 5  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 211/208                  | 211/211               | 211/208               | 211/211               | 211/211               | 211/208                             | 211/208                                | 211/211                              | 211/208                           |
|               | 6  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 208/208                  | 211/211               | 211/208               | 211/211               | 211/211               | 211/208                             | 208/208                                | 208/208                              | 211/211                           |
|               | 7  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 211/208                  | 211/211               | 211/211               | 211/211               | 211/211               | 211/208                             | 211/208                                | 211/208                              | 211/211                           |
|               | 8  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          | 211/208                  | 211/211               | 208/208               | 211/211               | 211/211               | 211/208                             | 208/208                                | 211/208                              | 211/208                           |
|               | 9  | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          |                          | 211/211               | 208/208               | 211/211               | 211/211               | 211/208                             | 208/208                                | 211/211                              | 211/208                           |
|               | 10 | 211/208    | 211/208                    | 211/208                 | 211/211                    | 211/211                          |                          | 211/211               | 211/211               | 211/208               | 211/211               | 211/208                             | 208/208                                | 208/208                              | 211/208                           |
| Colony ID     |    |            | 1                          | 1                       | 1                          | 2                                | 3                        | 4                     | 5                     | 6                     | 7                     | 8                                   | 9                                      | 10                                   | 6                                 |

There were only 8 termites present in sample #10  
Two termites in sample #8 did not amplify

# Maria A. Tonione, Ph.D.

Postdoctoral scholar

University of California, Berkeley

Department of Environmental Science, Policy, and Management

(818) 298-1354

[riatoni@berkeley.edu](mailto:riatoni@berkeley.edu)

Google Scholar Page: <https://scholar.google.com/citations?user=94wF5UkAAAAJ&hl=en>

## EDUCATION

**Ph.D. Environmental Science, Policy, and Management**

**University of California, Berkeley, May 2018**

Dissertation title: Acclimation and evolution in a changing climate: Integrating physiology, transcriptomics, and genomics of a thermal specialist

**M.S. Conservation Biology**

**San Francisco State University, 2009**

Thesis title: The phylogeography of the Hellbender (*Cryptobranchus alleganiensis*)

**B.A. Integrative Biology**

**University of California, Berkeley, 2004**

## RESEARCH AND TEACHING INTERESTS

Evolution, genomics, adaptation, science outreach, STEM teaching and mentoring

## PROFESSIONAL EXPERIENCE

**Postdoctoral Researcher.** Department of Environmental Science, Policy and Management, U.C. Berkeley 2018 – present, Adviser: Neil Tsutsui

**Graduate Student Coordinator.** Department of Environmental Science, Policy, and Management, U.C. Berkeley, 2013 – 2014

Advocated for graduate students and facilitated communication with the broader ESPM community via a biweekly newsletter. I planned and hosted departmental social events and managed the online ESPM handbook and the ESPM graduate student wiki page.

**Adjunct Faculty.** Skyline Community College, 2009 – 2011

Taught and developed lectures for various courses to a diverse group of students. My emphasis was teaching to varying learning styles and the Scientific Teaching method of instruction.

**Staff Research Associate II.** Evolutionary Genetics Lab, Museum of Vertebrate Zoology, U.C. Berkeley, 2003 – 2007 & 2008 – 2012

Instructed over 40 undergraduate and graduate students in the lab. Supported a variety of research projects using genetics to study ecology and evolution. Performed various duties ranging from generating molecular data to performing analyses. Trained and supervised over 15 undergraduates working on independent projects and honors projects.

**Lab Manager.** Evolutionary Genetics Lab, Museum of Vertebrate Zoology, 2005 – 2006

Developed and implemented a new payment system. Managed state-of-the-art shared genetics lab for over 40 graduate students, postdocs, visiting researchers, curators, and faculty members. Trained new users in lab techniques.

**Herpetology Curatorial Assistant.** Museum of Vertebrate Zoology, U.C. Berkeley, 2004 – 2005  
Cataloged incoming herpetological specimens. Shipped specimens to scientists around the world. Maintained meticulous records and data on specimen use.

**Lab Technician.** Fungal Genetics Lab, U.C. Berkeley, 2002 – 2003  
Maintained lab equipment and supplies. Completed supply orders and supported postdocs with experiments.

**Canvasser. Environment California,** Los Angeles, June 2001 – August 2001  
Conducted fundraising activities for this citizen-based environmental advocacy group.

**Supplemental Instructor.** Los Angeles Valley College, 2000 – 2002  
Assisted students in math, English, and science. Conducted supplemental lectures and proofread other students' work.

**Lifeguard and Swim Instructor.** North Hollywood YMCA, 1998 – 2000  
Took responsibility for the safety of everyone in pool. Successfully saved two distressed swimmers.

## **TEACHING EXPERIENCE**

### **Certifications**

- Certificate of Teaching and Learning in Higher Education – UC Berkeley, Spring 2017. Included pedagogy workshops, teaching observations and evaluations, and creation of a teaching portfolio

### **Graduate Student Instructor, U.C. Berkeley**

- ESPM 108B: Environmental Change Genetics – Fall 2014
- ESPM 50AC: Introduction to Culture and Natural Resource Management – Spring 2015

### **Adjunct Faculty, Skyline Community College**

- Human Biology – Fall 2009, Summer 2010
- Animals, People, and the Environment – Spring 2010, Fall 2010, Summer 2011, Fall 2011
- Organismal Biology – Spring 2011
- Organismal Biology lab – Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011, Fall 2011

### **Guest lectures**

- Biological Science Workshop Leader for New GSIs. UC Berkeley, Berkeley, CA, August 2015, 2016 & January 2016
- Invited Guest Lecturer. USF Upward Bound Math and Science Project, SF, CA

### **Other teaching experiences**

- Biological Science Workshop Leader for New GSIs, Fall 2015, 2016 & Spring 2016
- Student Teacher. Emery Secondary School, Oakland, CA, January 2013 – May 2013
- Tutor. Patten University at San Quentin Prison, Marin, CA, June 2010 – December 2010

- Tutor. Extended Opportunity Programs and Services, Los Angeles Valley College, CA, October 2001 – August 2002
- Student Supplemental Instructor. Los Angeles Valley College, CA, September 2000 – May 2001

### **Pedagogy workshops**

- Teaching Philosophy Statement, Fall 2016, 3-hour workshop through the UC Berkeley graduate student department (UCB-GSD)
- How Students Learn Workshop, Fall 2016, 3-hour workshop through UCB-GSD
- Teaching statement exchange, Spring 2015, 3-hour workshop through UCB-GSD
- Syllabus course design, Fall 2014, 3-hour workshop through UCB-GSD
- Grading and Assessment, Fall 2014, 3-hour workshop through UCB-GSD
- Teaching Strategies, Fall 2014, 3-hour workshop through UCB-GSD
- Community College Biology Faculty Enhancement through Scientific Teaching, 2011, Five-day HHMI-funded workshop on pedagogy by SFSU's Science Education Partnership and Assessment Laboratory (SEPAL).

### **PUBLICATIONS**

11. **Tonione, M.A.**, S. Cho, G. Richmond, C. Irian, N.D. Tsutsui. Submitted. Intraspecific variation in thermal acclimation and tolerance between populations of the winter ant, *P. imparis*.
10. Torres, C. W., **M. A. Tonione**, S. R. Ramírez, J. R. Sapp, N. D. Tsutsui. 2018. Genetic and chemical divergence among host races of a socially parasitic ant. *ECOLOGY & EVOLUTION*. **8**:11385-11398.
9. Moritz, C., M. Fujita, D. Rosauer, R. Agudo, G. Bourke, P. Doughty, R. Palmer, M. Pepper, S. Potter, R. Pratt, M. Scott, **M. Tonione**, & S. Donnellan. (2016) Multilocus phylogeography reveals nested endemism in a gecko across the monsoonal tropics of Australia. *Molecular Ecology*. 25:1354-1366. DOI: 10.1111/mec.13511
8. **Tonione, M. A.**, R. Fisher, C. Zhu, C. Mortiz. (2016) Deep divergence and structure in the Tropical Oceanic Pacific: a multilocus phylogeography of a widespread gekkonid lizard (Squamata: Gekkonidae: *Gehyra oceanica*). *Journal of Biogeography*. 43:268-278. DOI: 10.1111/jbi.12645
7. Penalba, J., L. Smith, **M. Tonione**, C. Sass, S. Hykin, P. Skipwith, J. McGuire, B. Rauri, C. Moritz. (2014). Sequence Capture using PCR-generated Probes (SCPP): A cost-effective method of targeted high-throughput sequencing for non-model organisms. *Molecular Ecology Resources*. 14:1000-1010.
6. Russell, J. C., L. Faulquier, **M.A.Tonione**. (2011) Rat invasion of Tetiaroa atoll, French Polynesia. In: Veitch, C. R., M.N. Clout, D.R. Towns (eds) *Island Invasives: eradication and management*. IUCN (International Union for Conservation of Nature), Gland, Switzerland. 118-123
5. **Tonione, M.**, N. Reeder, C. Moritz. (2011). High genetic diversity despite the potential for stepping-stone colonizations in an invasive species of gecko on Moorea, French Polynesia. *PLoS ONE*. 6: e26874
4. Hoskin, C. J.\*, **M. Tonione\***, M. Higgie, J.B. MacKenzie, S.E. Williams, J. VanDerWal, C. Moritz. (2011). Persistence in peripheral refugia promotes phenotypic divergence and speciation in a rainforest frog. *The American Naturalist*. 178: 561-578.

\*Authors contributed equally

3. **Tonione, M.**, J.R. Johnson, E. R. Routman. (2011). Microsatellite analysis supports mitochondrial phylogeography of the hellbender (*Cryptobranchus alleganiensis*). *Genetica*. 139:209-291.
2. Bell, R., J. Parra, **M. Tonione**, C. Hoskin, J. MacKenzie, S. Williams, C. Moritz. (2010). Patterns of persistence and isolation indicate resilience to climate change in montane rainforest lizards. *Molecular Ecology*. 19: 2531-2544.
1. Moritz, C., C. J. Hoskin, J. B. MacKenzie, B. L. Phillips, **M. Tonione**, N. Silva, S. E. Williams, C. H. Graham (2009). Identification and dynamics of a cryptic suture zone in tropical rainforest. *Proceedings of the Royal Society*. 276: 1235-1244.

#### **IN PREPARATION**

**Tonione, M.A.**, K. Bi, N.D. Tsutsui. In prep. RNA-seq reveals expression signatures of genes involved in temperature stress in a thermally sensitive ant, the winter ant, *Prenolepis imparis*.

**Tonione, M.A.**, K. Bi, N.D. Tsutsui. In prep. Phylogeography and population genetics of a widespread North American ant, *Prenolepis imparis*.

#### **PROFESSIONAL PRESENTATIONS**

Tonione, M. Adaptation and acclimation in a changing climate: Integrating physiology, transcriptomics, and genomics of a thermal specialist. 2017 Joint Meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and American Society of Naturalists.

Tonione, M. The genetic basis of adaptation to climate change in a thermally sensitive ant. 2016 Mathias Symposium, Bodega Bay Marine Laboratory.

Tonione, M., R. Fisher, and C. Moritz. Invasion history of two South Pacific geckos. 2009 Joint meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and American Society of Naturalists.

Tonione, M., C. Hoskin, and C. Moritz. Historical climate change and *Cophixalus ornatus*. 2008 Joint meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and American Society of Naturalists, University of Minnesota.

Tonione, M., C. Moritz, and C. Hoskin. Phylogeography of an Australian Wet Tropics rainforest endemic, the microhylid frog *Cophixalus ornatus*. 2005 Joint Meeting of Ichthyologists and Herpetologists, University of South Florida.

#### **COMMUNITY AND STUDENT SERVICES**

Presenter. Bay Area Science in Schools. Berkeley, CA Spring 2019

Exhibitor. Bay Area Science Festival. SF, CA, November 2016

Mentor. Be a Scientist, King Middle School, Berkeley, CA, Spring 2015

Student Adviser. Pre-SOMA (Student Osteopathic Medical Association) at Skyline College, San Bruno CA, January 2010 – December 2011

Presenter. Nature walk at Skyline College, San Bruno, CA, April 2010

Presenter. Expanding Your Horizons at Skyline College, San Bruno, CA, March 2010

Presenter. Expanding Your Horizons at Skyline College, San Bruno, CA, March 2011

#### **PATENTS**

Compositions and methods for controlling pests. (Filed 2013, U.S. application serial no. 61/983,364), Neil Tsutsui, **Maria A Tonione**

#### **HONORS AND AWARDS**

- Bob Lane and Sandy Purcell Graduate Summer Award (\$3,500, Summer 2017)
- Joos/Buckingham/Usinger Award (one semester stipend and fees, Fall 2016)
- Berkeley Chapter of Sigma Xi Grant In Aid of Research (\$500, 2015)
- ESPM Summer Research Grant (\$750, Summer 2015)
- Outstanding Graduate Student Instructor (\$250, Spring 2015)
- Souja Graduate Prize/Earl Buckingham Entomology Fund (one semester of stipend and fees, Fall 2015)
- ESPM O&E Summer Grant (\$3,786.33, 2014)
- Bob Lane Endowed Graduate Support (\$1,000, 2014)
- Mildred E. Mathias Graduate Student Research Grant (\$2,860, 2013)
- Margaret C. Walker Fund for Systematics (\$1,000 each year, 2013, 2014, 2015; \$1,200 in 2016, 2017)
- Spieth Evolution Meetings Grant (\$500, 2013)
- Student travel award for the NAS Sackler Colloquium, In the Light of Evolution: Biodiversity and Extinction (2007)
- Renmin University of China, Chinese Language School Study Abroad Award (2007)
- National Institutes of Health Pre-doctoral Fellow for NIH MBRS-RISE (2007)
- San Francisco State University Biology Department Scholarship (2006)
- Pepsi Scholar Athlete Award (2003)
- UC Berkeley Levi Strauss Scholarship (2002)
- President's Honor Award LAVC (2002)
- Los Angeles Valley College Biology Department Scholarship (2002)

#### **MENTORING OF UNDERGRADS (only those involved in multiple semesters are listed)**

|             |  |
|-------------|--|
| 2013 – 2015 | So Mi Cho, Undergrad Research Apprentice, Project: Winter ant thermal ecology.   |
| 2009 – 2012 | Jose Andrade, Undergrad Research Apprentice, Senior honors project: Diversity of <i>Heteronotia</i> lineages in central Australia.   |
| 2009 – 2011 | Catherine Zhu, Undergrad Research Apprentice, Project: Multilocus phylogeography reveals deep divergence and surprising structure in a widespread gecko.   |
| 2008 – 2012 | Anuja Oza, Undergrad Research Apprentice, Project: Recent speciation and limited phylogeographic structure in <i>Mixophyes</i> frogs from the Australian Wet Tropics. <i>dendrobatidis</i> in declining and non-declining populations of frogs through time. |
| 2008 – 2010 | Katharine Lovett, Undergrad Research Apprentice, Project: Recent speciation and limited phylogeographic structure in <i>Mixophyes</i> frogs from the Australian Wet Tropics.   |
| 2008 – 2010 | Elise Burton, Undergrad Research Apprentice, Project: Hybridization and speciation in the Australian Wet Tropics   |

|             |   |
|-------------|---|
| 2008 – 2009 | Sy Nguyen, Undergrad Research Apprentice, Project: Diversity of the <i>Carlia</i> genus in Australia.                           |
| 2008 – 2009 | Matt McElroy, Undergrad Research Apprentice, Project: Diversity in two sympatric species of lizard on Moorea, French Polynesia. |
| 2008 – 2009 | Jayanti Gupta, Undergrad Research Apprentice, Project: Barcoding species from Moorea French Polynesia.                          |
| 2007 – 2008 | Jenna Lin, Undergrad Researcher, Project: Diversity in the Hellbender.  |



NEIL D. TSUTSUI, PH.D.  
PROFESSOR  
ABRAHAM E. & MARTHA M. MICHELBACHER CHAIR OF SYSTEMATIC ENTOMOLOGY  
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27 June 2019

Dear Board Members,

I am writing to request a substitution of Key Personnel on my contract with the California Structural Pest Control Board, "*Diet and colony structure of two emerging invasive pest ants*".

In my original proposal, I listed as Key Personnel Ms. Kelsey Scheckel, a graduate student researcher (GSR) in my laboratory. Funding was included to support her at 50% time for one semester per year. However, Ms. Scheckel has recently been selected for the BERKELEY CONNECT teaching and mentoring program here at UC Berkeley, which will provide her salary, tuition, and fees for the remainder of her PhD.

Ms. Scheckel's responsibilities in the proposal were listed as:

"This GSR is essential for the proposed research as she will perform the day-to-day experimental execution and data collection, and will mentor and guide the two undergraduate researchers. She will also analyze data and assist with manuscript writing."

The experiments and data collection described in the proposal include collection of ant colonies in the field, lab experiments to measure dietary preference, behavioral mapping of colonies in the field, and preparation of ants for stable isotope quantification.

I am requesting that this role now be filled by a current post-doctoral researcher in my lab, Dr. Maria Tonione (CV attached). Dr. Tonione has extensive experience performing relevant field and laboratory research, data analysis, and manuscript writing, and she has performed all of the techniques required for this role. She is an excellent candidate for the successful completion of this research project.

This personnel substitution will not require any budgetary change; I will pay the balance of Dr. Tonione's salary from other sources.

Please feel free to contact me if you have any additional questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Neil D. Tsutsui".

Neil D. Tsutsui  
Professor and Michelbacher Chair of Systematic Entomology



# HO EUN PARK

3301 Yorba Linda Blvd Apt #102, Fullerton, CA 92831

Phone: 510-773-1114 E-mail: [hpark026@ucr.edu](mailto:hpark026@ucr.edu)

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## EDUCATION

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### La Sierra University (2013-2016)

- Bachelors of Science – Biomedical Sciences: Biology
- Cumulative GPA: 3.23

### University of California, Riverside (2010-2015)

- Bachelors of Arts – Media and Cultural Studies
  - Cumulative GPA: 3.19
  - Major GPA: 3.74
- 

## WORK EXPERIENCE & RESEARCH

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### UC Riverside Department of Entomology (2018-Present)

**Employer:** UC Riverside

**Supervisor:** Dr. Mike Rust

- Maintaining and rearing of laboratory insect colonies, specifically the cockroaches and fleas.
- Laboratory testing through preparation of insecticide solutions, construction of testing arenas and devices to test the insects for data collection to be inputted into an spreadsheet.
- Miscellaneous duties include maintaining of laboratory supplies and equipment through record keeping and ordering, and performing laboratory clean up.

### UC Riverside Department of Entomology (2013-2017)

**Mentor:** Dr. Dong Hwan Choe

**Study:** Research criteria implements structural pest control experimentation through utilization of synthetic volatiles and examination of exuviae components and glandular physiognomy.

**Acquired Skill Sets/ Job Description:** Small-scale architectural design for pheromone testing chambers, maintaining and rearing of entomological insect colonies, and utilization of microtome for exuviae microscopic cross-sections and dissection of glandular pockets. Implementation of Noldus apparatus for movement tracking and behavioral examination of entomological specimens. Experience in collection of gaseous molecular volatiles and injection into Gas Chromatography Mass Spectrometer for analytical quantification of organic compounds through capillary columns.

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## LEADERSHIP AND PROFESSIONAL SERVICES

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### La Sierra University Pre-Dental Club (2015-2016)

**Organization Description:** Joint Programming with Loma Linda Dental School to organize fundraising opportunities and establish awareness to surrounding communities.

**Responsibilities:**

- a) *ORGSYNC* Manager- update organization website
- b) Secretary- E-mail correspondent, direct contact with president, record-keeping duties
- c) V.P. of Public Relations – Bringing awareness about the organization’s events through social media

**La Sierra University Teacher’s Assistant for Gross Anatomy (Spring 2016 – Summer 2016)**

**Responsibilities:**

- a) Assist Faculty member with classroom instruction, proctoring exams, and other miscellaneous tasks such as lab preparation and clean ups.
- b) Mentor and tutor students to help them understand the course materials.

**Loma Linda University Child Life Volunteer (2013-Present)**

**Organization Description:** Community Services Project that provides joint programming and services with Hematology/Oncology Unit at Loma Linda University Health

**Responsibilities:**

- a) Organization and Disinfection of Children’s Toys, Games, and Accessories
- b) Utilization of therapeutic play to promote accelerated recovery processes
- c) Promotion of a balanced environment to provide stress preventative-care for children, adolescents, and patient family during hospitalization.
- d) Delegation of age-appropriate activities for hospital patients to ensure a more pleasurable stay

**Sigma Kappa Sorority – University of California, Riverside (2010-2014)**

**Organization Description:** Non-profit organization that provides philanthropic services for the surrounding environmental and gerontological community and funding for The Alzheimer’s Association and Maine Sea Coast Mission.

**Responsibilities:**

- a) Historian/Triangle Correspondent (Spring 2010) – Maintenance of records of sorority files and direct communication with sorority National magazine editors.
- b) Raising awareness for non-profit charitable organizations by organizing fundraisers and providing philanthropic services through monetary donations
- c) Fostering of Public Relations with Greek Community through networking and teamwork alliances

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## **AWARDS AND ACKNOWLEDGEMENTS**

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**Carl Strom/Western Exterminator Company Scholarship in Urban Entomology – March 2015**

- Scholarship Award of recognition for outstanding studies and research in the field of structural pest control industry.

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## **PUBLICATIONS**

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**Published: Chemically Mediated Arrestment of the Bed Bug, *Cimex lectularius*, by Volatiles Associated with Exuviae of Conspecifics**

- Available for download from  
<http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0159520#references>
- Choe D-H, Park H, Vo C, Knyshov A (2016) Chemically Mediated Arrestment of the Bed Bug, *Cimex lectularius*, by Volatiles Associated with Exuviae of Conspecifics. PLoS ONE 11(7): e0159520. doi:10.1371/journal.pone.0159520

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## PROFICIENCIES

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- Microsoft Word, Excel, and PowerPoint

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## PERSONAL REFERENCES

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- **Dong-Hwan Choe (PhD)–Assistant Cooperative Extension Specialist/UCR Professor**  
E-mail: [donghwan.choe@ucr.edu](mailto:donghwan.choe@ucr.edu) Phone Number: (951)801-9722
- **Claudia Vo – Undergraduate Laboratory Research Assistant**  
E-mail: [cvo008@ucr.edu](mailto:cvo008@ucr.edu) Phone Number: (925)216-5350

## Ho Eun Park - Curriculum Vitae

### **Residence**

3301 Yorba Linda Blvd Apt#102  
Fullerton, CA 92831  
(510)773-1114  
Hpark026@ucr.edu

### **Employment**

Department of Entomology  
University of California, Riverside  
Riverside, CA 92521-0314  
(951) 827-5805  
E-mail: hpark026@ucr.edu

### **Education**

|      |   |             |
|------|---|-------------|
| B.S. | La Sierra University. Bachelors of Science in Biology<br>with emphasis of Biomedical Sciences | 2013 - 2016 |
| B.A. | University of California, Riverside. Bachelor of Arts in<br>Media & Cultural Studies          | 2010 - 2015 |

### **Positions**

|   |              |
|---|--------------|
| Staff Research Associate 1, Department of Entomology,<br>University of California, Riverside      | 2018-present |
| Undergraduate Research Assistant, Department of Entomology<br>University of California, Riverside | 2013 - 2017  |

### **Work Experience & Research**

|  |                |
|--|----------------|
| Department of Entomology, University of California, Riverside;<br>Supervisor: Dr. Mike Rust; Maintaining and rearing of laboratory<br>insect colonies, specifically the cockroaches and fleas. Laboratory<br>testing through preparation of insecticide solutions, construction of<br>testing arenas and devices to test the insects for data collection.                              | 2018 – Present |
| Department of Entomology, University of California, Riverside;<br>Mentor: Dr. Dong Hwan Choe and Dr. Jia-Wei Tay; Assisted in<br>preparation of biodegradable hydrogel bait made from alginate<br>that contains sucrose solution mixed with pesticide. Other projects<br>include sugar preferential study of sucrose, fructose, and glucose<br>mixed with pheromone in Argentine ants. | 2016 - 2017    |
| Department of Entomology, University of California, Riverside;<br>Mentor: Dr. Dong Hwan Choe and Dr. Christiane Weirauch;<br>Collaborators: Alexander Knyshov and Claudia Vo; Utilization<br>of microtome for exuviae microscopic cross-sections and<br>dissection of glandular pockets of bed bugs.   | 2015 - 2016    |

Department of Entomology, University of California, Riverside; 2013 - 2017  
Mentor: Dr. Dong Hwan Choe; Maintaining and Rearing of laboratory insect colonies, specifically bedbugs and argentine ants. Research criteria implements pest control experimentation through utilization of synthetic volatiles and examination of exuviae components and glandular physiognomy.

### **Professional Societies**

Sigma Kappa Sorority – University of California, Riverside 2010-2014

### **Honors and Awards**

Carl Strom/ Western Exterminator Company Scholarship in Urban Entomology - 2015

### **Publications**

Choe DH, Park H, Vo C, Knyshov A (2016) Chemically Mediated Arrestment of the Bed Bug, *Cimex lectularius*, by Volatiles Associated with Exuviae of Conspecifics. PLOS ONE 11(7): e0159520.  
<https://doi.org/10.1371/journal.pone.0159520>

June 28, 2019

Structural Pest Control Board Members:

Please find my request for project contract amendment below.

Project title: Improving Urban Pest Ant Management by Low-Impact IPM Strategies  
Principal Investigator: Dong-Hwan Choe

Funding Agency: CALIFORNIA DEPARTMENT OF CONSUMER AFFAIRS  
Agency Award No: 26710  
Award Amount: \$77,309.00  
Effective Dates: 10/12/2018 through 12/31/2019

One of the key persons for this project, Dr. Jia-Wei Tay, has left UC Riverside (Choe lab) in December 2018 after about 4 months of medical leave (Aug-Dec 2018). Dr. Tay was not paid by this grant in 2018 and 2019.

PI (Choe) hopes to have an existing staff research associate (Ms. Hoeun Park) work on the project instead of hiring a new postdoc. The project is straightforward and most of critical information has been already transferred from Dr. Tay to Ms. Park. PI (Choe) will be closely advising Ms. Park on a daily basis for the project.

The role previously assigned to Dr. Tay will be performed by Ms. Park.

Regarding the budget, following modification will be necessary.

- Remove Dr. Jia-Wei Tay from the budget plan.
- Include Ms. Hoeun Park for the budget plan.
- Support Ms. Hoeun Park's 50% between 07/1/2019 – 12/31/2019.

The total spending for this personnel will stay identical or similar to what was originally proposed in the contract.

Thank you for your kind consideration for this matter.

Sincerely yours,

Dong-Hwan Choe  
Associate C/E Specialist and Associate Professor  
Department of Entomology  
Riverside, CA 92521, USA  
Tel: 1-951-827-5717  
<http://urbanpest.ucr.edu>

#### **§ 1970.4. Pesticide Disclosure Requirement.**

(a) The primary contractor for fumigation shall have in his or her possession and shall provide to any subcontractor for fumigation a form (See Form 43M-48 (Rev. 5/07) at the end of this section) signed by the occupants or designated agent of a structure. The primary contractor for fumigation and the subcontractor for fumigation shall retain a copy of the occupants fumigation notice for a period of at least three years. In case of multiple-family dwellings, the owner, manager or designated agent of the building may obtain signatures and/or verify the notification of the occupants.

(b) The form shall state the name of the pest to be controlled, the pesticide(s)/fumigant(s) proposed to be used, the active ingredient(s) and the health cautionary statement as required under section 8538 of the code.

(c) The form shall also state that a lethal gas (poison) will be used in the building on indicated dates and that it is unsafe to return to the building until a certification notice for reentry is posted by the licensed fumigator. The form shall also indicate that the occupant has received the prime contractor's information regarding the procedures for leaving the structure.

The properly signed form or a copy, written or electronic, thereof shall be in the possession of the licensed fumigator when the fumigant is released. Such form shall be attached to and become a permanent part of the fumigation log upon completion of the fumigation.

~~(b) Any death or serious injury relating to pesticide application or use, whether to a worker or member of the public, shall be reported to the nearest Structural Pest Control Board office immediately.~~

~~(c) Whenever a licensee employed by a branch 2 or branch 3 registered company applies a pesticide within, around or to any structure such person shall leave in a conspicuous location a written notice identifying the common, generic or chemical name of each pesticide applied. In case of a multiple family structure, such notice may be given to the designated agent or the owner. Such pesticide identification notice may be a door hanger, invoice, billing statement or other similar written document which contains the registered company's name, address, and telephone number.~~

~~(d) All pest control operators, field representatives, applicators and employees in all branches shall comply in every respect with the requirements of section 8538 of the code. Failure to comply with section 8538 of the code is a misdemeanor and shall constitute grounds for discipline.~~

~~(e) Where notification is required under section 8538 of the code, and the premises on which the work is to be performed is a multiple family dwelling consisting of more than 4 units, the owner/owner's agent shall receive notification and other notices shall be posted in heavily frequented, highly visible areas including, but not limited to, all mailboxes, manager's apartment, in all laundry rooms, and community rooms on all external pest control servicing. Complexes with fewer than 5 units will have each affected unit notified. Any pest control servicing done within a tenant's apartment requires that the tenant be notified according to section 8538 of the code.~~

~~(f) A registered company which applies any pesticide within, around or to any structure shall provide to any person, within 24 hours after request therefore, the common, generic or chemical name of each pesticide applied.~~

Note: Authority cited: Section 8525, Business and Professions Code. Reference: Section 8505.7, 8505.13 and 8538, Business and Professions Code.

**§ 1970.41 Pre-Application Notice Requirements**

(a) Where notification is required under section 8538 of the code, and the premises on which the work is to be performed is a commercial, industrial or multiple family building consisting of more than 4 units, the owner/owner's agent and tenant if there is a tenant may receive notification which may be posted in a conspicuous place. Complexes with 4 or fewer than 5 units will have each affected unit notified by at least one of the following: 1) first class or electronic mail, or 2) personal delivery, in addition to any other notification required by section 8538.

(b) All registered companies, pest control operators, field representatives, applicators and employees in all branches shall comply in every respect with the requirements of section 8538 of the code. Failure to comply with section 8538 of the code is a misdemeanor and shall constitute grounds for discipline.

(c) "Conspicuous place" means heavily frequented, highly visible areas including, but not limited to, all mailboxes, manager's apartment, in all laundry rooms, and community rooms.

Note: Authority cited: Section 8525, Business and Professions Code. Reference: Section 8525 and 8538, Business and Professions Code.

**§ 1970.42 Post-Application Notice Requirements**

(a) Whenever a licensee employed by a branch 2 or branch 3 registered pest control company has applied a pesticide within, around, or to any structure, the licensee shall provide to the owner or the owner's designated agent, a written or electronic notice identifying the common, generic, or chemical name of each pesticide applied. This notice may be a door hanger, invoice, billing statement or other similar written or electronic document which contains the registered company's name, address, and telephone number. This notice shall be provided no later than at the conclusion of service.

(b) A registered company which has applied any pesticide within, around or to any structure shall provide to any person, within 24 hours after request therefore, the common, generic or chemical name of each pesticide applied.

(c) Any death or serious injury relating to pesticide application or use, whether to a worker or member of the public, shall be reported to the nearest Structural Pest Control Board office immediately.

Note: Authority cited: Section 8525, Business and Professions Code. Reference: Section 8525 and 8538, Business and Professions Code.

## **§ 1950. Continuing Education Requirements.**

(a) Except as provided in section 1951, every licensee is required, as a condition to renewal of a license, to certify that he or she has completed the continuing education requirements set forth in this article. A licensee who cannot verify completion of continuing education by producing certificates of activity completion, whenever requested to do so by the Board, may be subject to disciplinary action under section 8641 of the code.

(b) Each licensee is required to complete a certain number of continuing education hours during the three year renewal period. The number of hours required depends on the number of branches of pest control in which licenses are held. ~~The subject matter covered by each activity shall be designated as "technical" or "general" by the Board when the activity is approved.~~ Hour values shall be assigned by the Board to each approved educational activity, in accordance with the provisions of section 1950.5.

(c) Operators licensed in one branch of pest control shall complete 16 continuing education hours during each three year renewal period. Operators licensed in two branches of pest control shall complete 20 continuing education hours during each three year renewal period. Operators licensed in three branches of pest control shall complete 24 continuing education hours during each three year renewal period. In each case, a minimum of four continuing education hours in a technical subject directly related to each branch of pest control held by the licensee must be completed for each branch license, a minimum of ~~two~~ six hours in Integrated Pest Management as defined in section 1984 must be completed by Branch 2 and/or 3 licensees ~~renewing on or after June 30, 2010,~~ and a minimum of ~~eight~~ four hours must be completed from Board approved courses on the Structural Pest Control Act, the Rules and Regulations, or structural pest control related agencies' rules and regulations.

(d) Field representatives licensed in one branch of pest control shall have completed 16 continuing education hours, field representatives licensed in two branches of pest control shall have completed 20 continuing education hours, field representatives licensed in three branches of pest control shall have completed 24 continuing education hours during each three year renewal period. In each case, a minimum of four continuing education hours in a technical subject directly related to each branch of pest control held by the licensee must be completed for each branch of pest control licensed, a minimum of ~~two~~ six hours in Integrated Pest Management must be completed by Branch 2 and/or 3 licensees ~~renewing on or after June 30, 2010,~~ and a minimum of ~~eight~~ four hours must be completed from Board approved courses on the Structural Pest Control Act, the Rules and Regulations, or structural pest control related agencies' rules and regulations.

~~(e) For the renewal period ending December 31, 2008, and each subsequent renewal period up to the renewal period ending June 29, 2010, a licensed applicator shall have completed 12 hours of Board approved continuing education. Such continuing education shall consist of eight hours of continuing education covering pesticide application and use, and four hours covering the Structural Pest Control Act and its rules and regulations or structural pest related agencies' rules and regulations.~~

~~(f)~~ (e) ~~For the renewal period ending June 30, 2010 and each subsequent renewal period,~~ a licensed applicator Applicators shall have completed 12 hours of Board approved continuing education. Such continuing education shall consist of ~~six~~ four hours of continuing education covering pesticide application and use, ~~two~~ four hours covering Integrated Pest Management, and four hours covering the Structural Pest Control Act and its rules and regulations or structural pest related agencies' rules and regulations.

(g) Operators who hold a field representative's license in a branch of pest control in which they do not hold an operator's license must complete four of the continuing education hours required by section 1950(c) in a technical subject directly related to the branch or branches of pest control in which the field representative's license is held, in order to keep the field representative's license active.

(h) No course, including complete operator's courses developed pursuant to section 8565.5, may be taken more than once during a renewal period for continuing education hours.

Note: Authority cited: Section 8525, Business and Professions Code. Reference: Sections 8560 and 8593, Business and Professions Code.

# STRUCTURAL PEST CONTROL BOARD

## REGULATORY ACTION STATUS

| SECTION     | SUBJECT  | STATUS  |
|-------------|--|---|
| <b>1902</b> | <b>Definitions</b>   | <b>July 1, 2019 – Staff Preparing Regulatory Proposal</b>   |
| <b>1911</b> | Addresses – Permits licensees to request a mailing address other than the address of record.     | March 13, 1996 – Approved by the Office of Administrative Law   |
|             | Addresses – Requires applicators to report change of address.                                    | August 12, 1996 – Approved by the Office of Administrative Law  |
|             | Change of Address / Employment<br><br>Allow Employers to Notify Board of Employee Disassociation | November 5, 2014 — Act Review Committee Recommended Change to Allow Companies to Notify the Board of Employee Disassociation<br><br>July 1, 2017 – The Language Proposed by the Act Review Committee is Included in Senate Bill (SB) 800 to Amend B&P Code Section 8567 and Will Accomplish the Regulatory Effect of the Proposed Changes to CCR 1911 |

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| 1912 | <p>Branch Office Registration – Section 100 Change.</p> <p>To change the phrase “A registered company who opens a branch shall ...” to “A registered company which opens a branch office shall...”</p>                        | <p>Section 100 Change – Approved by the Office of Administrative Law on May 17, 2004</p>  |
| 1914 | <p>Name Style – Delete Board’s responsibility to disapprove confusingly similar name styles</p>   | <p>December 16, 1998 – Public Hearing<br/>Disapproved by the Board</p> <p>April 4, 2003 - Public Hearing - Board voted to adopt February 14, 2004 Rulemaking File expired due to Executive Order Noticed for Public Hearing: April 8, 2005 Adopted by the Board. March 21, 2006 Approved by the Office of Administrative Law</p>      |
| 1914 | <p>Name Style – Company Registration</p> <p>Will Prohibit the Approval or Use of a Company Name or Telephone Number That is the Same as the Name or Telephone Number of a Company Whose Registration has Been Surrendered</p> | <p>October 13, 2016 – Public Hearing was Conducted and Board Directed Staff to Begin Final Rulemaking Process</p> <p>October 2, 2017 – Approved by Office of Administrative Law and Effective January 1, 2018</p>   |
| 1918 | <p>Supervision – Clarifies that a field representative or an operator can supervise.</p> <p>Supervision – Permits qualifying managers to supervise multiple locations.</p>  | <p>August 12, 1996 – Approved by the Office of Administrative Law.</p> <p>December 16, 1998 – Public Hearing. Referred to Rules and Regulations Committee.</p> <p>August 6, 1999 – Modified language mailed. January 11, 2001 Public Hearing. Adopted by the Board. Rulemaking file not completed by deadline of December 1, 2001</p> |

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| 1918              | Re-states supervision of multiple locations, clarifies liability / responsibility of qualifying manager[s] & supervisor(s). | April 4, 2003 Public Hearing, referred to Rules and Regs Committee. Committee meeting held September 17, 2003. Placed on agenda for October 17, 2003 Bd. Mtg. Modified Text mailed Nov. 19, 2003. Comments due Dec. 3, 2003. No comments rec'd. February 14, 2004 Rulemaking File expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Adopted by the Board. March 21, 2006 - Approved by the Office of Administrative Law. |
| 1919              | Research Panel – Deletes reference to public board member on panel.   | March 13, 1996 – Approved by the Office of Administrative Law.  |
| 1920              | Cite & Fine – Authorizes board staff to issue citations and fines.  | August 13, 1998 – Approved by the Office of Administrative Law.   |
|                   | Cite & Fine – Amends to clarify no appeal after modification of decision.   | October 15, 1999 – Public Hearing - Board voted to adopt.   |
| 1920 (e)(1)(2)(3) | Cite & Fine – Specifies that a second informal conference for a modified citation will not be allowed.                      | January 11, 2001 - Public Hearing - Board voted to adopt. December 1, 2001 Rulemaking File not completed by deadline. April 4, 2003 - Public Hearing - Board voted to adopt. February 14, 2004 Rulemaking File expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Adopted by the Board. March 21, 2006 - Approved by the Office of Administrative Law.  |

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| 1920(b)    | <p>Citation - Assessment of Fines – SB 362 increased max fine amount to \$5000.</p> <p>Repealed specific criteria required in assessing fines in excess of \$2,500.</p> | <p>Section 100 Change pending Administrative decision to go forward. Filed with Sec. of State: 12-18-03. Board approved DCA's four sets of circumstance for max. fine on October 8, 2004. Noticed for Public Hearing July 15, 2005. December 30, 2005 – Approved by the Office of Administrative Law.</p> <p>Agency subsequently agreed that the specific criteria from 2004 for fines in excess of \$2,500 should no longer apply. Board approved on April 22, 2010.</p> <p>December 22, 2010 Notice, ISOR, Language, Std 399 submitted to Linda Otani for review/approval by DPR and Agency.</p> <p>April 12, 2011 DPR returned package with approval signatures.</p> <p>May 10, 2012 – Public Hearing – Board voted to adopt.</p> <p>March 22, 2013 rulemaking file filed with Office of Administrative Law</p> <p>May 8, 2013 – Disapproved by OAL</p> <p>Economic Impact Statement not included</p> <p>June 25, 2013 – 15 day notice to add Economic Impact Statement</p> <p>July 17, 2015 – Resubmitted to OAL</p> <p>August 8, 2013 – Approved by OAL</p> <p>Became Effective October 1, 2013</p> |
| 1920(e)(2) | <p><b>Citations and Fines</b></p> <p><b>Allows the Board 30 Days Rather Than 10 to Notify Respondents of Informal Conference Decisions</b></p>                          | <p><b>July 1, 2019 – Staff Preparing Regulatory Proposal</b></p>   |

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| 1922   | Civil Penalty Actions by Commissioners – Specifies penalty ranges.<br>Penalty ranges serious, minor and moderate upped to mirror new law.                                   | May 14, 1998 – Approved by the Office of Administrative Law.<br>Noticed for Public Hearing: October 7, 2005.<br>Adopted by the Board. August 25, 2006 – Approved by the Office of Administrative Law.  |
| 1922.3 | Course requirements by County Agricultural Commissioners - Will place into regulation specific guidelines for licensee / County Ag Commissioners re: civil penalty actions. | Noticed for the April 23, 2004 Board Meeting.<br>Approved by the Office of Administrative Law - July 6, 2005.  |
| 1923   | Consumer Complaint Disclosure.<br><br>DCA created new document: Public Information System – Disclosure.   | July 18, 2003 - Public Hearing - Board approved to adopt after proposed language modified with a 15-day public comment period. Rulemaking file placed on hold due to Executive Order. Withdrawn by DCA Legal Dept.<br>Noticed for Public Hearing: October 7, 2005.<br>Board voted to not proceed. (Language needs re-drafting – (a)4(d)(A) and (B)(ii) – now conforms to healing arts situation, and, if [A] is satisfied – so is [B]) |
| 1934   | Board Approved Operator’s License Course – Specifies time period in which courses must be completed.  | August 13, 1998 – Approved by the Office of Administrative Law.  |

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| 1936   | Operator and Field Representative License Applications Revisions to include military and veteran status, revised criminal history question, etc. | <p>March 27, 2014 – Staff directed by Board to begin rulemaking process to revise forms</p> <p>June 4, 2015 - Noticed for Public Hearing</p> <p>July 23, 2015 - Public Hearing – Adopted by Board.</p> <p>August 20, 2015 – To DCA for legal review.</p> <p>June 8, 2016 – 15 Day Notice of Modified Text issued to clarify that California ID in lieu of driver license is acceptable.</p> <p>October 12, 2016 – Approved and Effective January 1, 2017</p> |
| 1936.1 | Company Registration Form Revisions to include military and veteran status, revised criminal history question, etc.                              | <p>March 27, 2014 – Staff directed by Board to begin rulemaking process to revise forms</p> <p>June 4, 2015 - Noticed for Public Hearing</p> <p>July 23, 2015 - Public Hearing – Adopted by Board.</p> <p>August 20, 2015 – To DCA for legal review.</p> <p>June 8, 2016 – 15 Day Notice of Modified Text issued to clarify that California ID in lieu of driver license is acceptable.</p> <p>October 12, 2016 – Approved and Effective January 1, 2017</p> |
| 1936.2 | Applicator – Established by regulation the form for the applicator's license.  | <p>August 12, 1996 – Approved by the Office of Administrative Law.</p>   |

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| 1936.2 | Applicator License Application Form Revisions to include military and veteran status, revised criminal history question, etc.   | <p>March 27, 2014 – Staff directed by Board to begin rulemaking process to revise forms</p> <p>June 4, 2015 - Noticed for Public Hearing.</p> <p>July 23, 2015 - Public Hearing – Adopted by Board</p> <p>August 20, 2015 – To DCA for legal review.</p> <p>June 8, 2016 – 15 Day Notice of Modified Text issued to clarify that California ID in lieu of driver license is acceptable.</p> <p>October 12, 2016 – Approved and Effective January 1, 2017</p>  |
| 1937   | <p>Qualification of Applicant – Specifies minimum number of hours of training and experience.</p> <p>IPM training and experience – Requires that branch 2 and/or 3 applicants complete training and experience in structural Integrated Pest Management as part of their pre-licensing requirements</p> | <p>August 13, 1998 – Approved by the Office of Administrative Law.</p> <p>January 2008 – Noticed for Public Hearing to amend the current regulation.</p> <p>April 18, 2008 - Public Hearing - Board approved to adopt.</p> <p>June 26, 2008 - Rulemaking file submitted to DCA for Director review.</p> <p>November 18, 2008 – Clarification of the effective date needed for section 1950 of the rulemaking file.</p> <p>January 6, 2009 – Rulemaking file submitted to DCA for Director review.</p> <p>March 20, 2009 - Approved by the Office of Administrative Law.</p> |

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| 1937.11 | <p>Disciplinary Guidelines – Incorporates by reference the Manual of Disciplinary Guidelines and Model Disciplinary Orders. Clean up language to change reference of UC Berkeley correspondence course to a CE course approved by board.</p> | <p>April 14, 1997 – Approved by the Office of Administrative Law.<br/> Board approved on October 28, 2010.<br/> December 22, 2010 Notice, ISOR, Language, Std 399 submitted to Linda Otani for review/approval by DPR and Agency.<br/> April 12, 2011 DPR returned package with approval signatures.<br/> May 10, 2012 – Public Hearing - Board voted to adopt.<br/> March 22, 2013 rulemaking file filed with Office of Administrative Law<br/> May 8, 2013 – Disapproved by OAL<br/> Economic Impact Statement not included<br/> June 25, 2013 – 15 day notice to add Economic Impact Statement<br/> July 17, 2015 – Resubmitted to OAL<br/> August 8, 2013 – Approved by OAL<br/> Became Effective October 1, 2013</p> |
| 1937.11 | <p>Revisions Regarding When Suspension Time Must be Served, Length of Probation, Tolling of Probation, etc.</p>  | <p>October 13, 2016 – Public Hearing was Conducted and Board Directed Staff to Begin Final Rulemaking Process</p> <p>January 3, 2018 – Approved by Office of Administrative Law and Effective April 1, 2018.</p>  |

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| 1937.17              | Customer Notification of Licensure – Adopts regulation requiring practitioner notification to customer of licensure. | <p>October 15, 1999 – Public Hearing - Referred to committee.</p> <p>January 18, 2002 - Public Hearing adopted by the board with modified text.</p> <p>December 16, 2002 - Approved by the Office of Administrative Law.</p> |
| 1940<br>1941<br>1942 | Applicator – Amends these actions to make distinction between field representatives, operators and applicators.      | <p>August 12, 1996 – Approved by the Office of Administrative Law.</p>   |

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| 1948 | <p>Applicator Renewal Fee – Establishes the fee for applicator license renewal.</p> <p>Applicator – Establish and specify fee for applicator’s license and license renewal.</p> | <p>June 26, 1998 – Public Hearing. Pending approval by Department of Finance.</p> <p>January 20, 2000 – Public Hearing - Board voted to adopt. March 13, 2002 disapproved by OAL. April 12, 2002 Public Hearing: Board voted to take no action. May 5, 2002: Rulemaking file submitted to the Director. July 7, 2002 file disapproved, DCA opposed approval due to Board’s current fund condition. April 4, 2003 - Public Hearing - Board voted to adopt. February 14, 2004 Rulemaking File expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Adopted by the Board. April 2005 - DCA opposed proposal. Withdrawn from rulemaking file on April 28, 2005 for separate submission.</p> <p>Noticed for Public Hearing: October 7, 2005. Adopted by the Board. August 25, 2006 – Approved by the Office of Administrative Law.</p> |
|      | <p>Applicator license/renewal fee lowered to \$10, Operator license/renewal fee lowered to \$120.</p>   |   |
|      | <p>Field Representative – Increase field representative examination fee.</p>  | <p>October 15, 1999 – Public Hearing - Adopted by the Board. January 20, 2000 Board decided to drop this section.</p>   |
| 1950 | <p>Continuing Education - Deletes outdated renewal requirements.</p>  | <p>August 12, 1996 - Approved by the Office of Administrative Law.</p>  |

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| 1950 | Applicator Continuing Education – Establish and specify number and type of continuing education hours required for renewal of applicator’s license. At April 2005 Hearing CE hours were changed to 12 hrs total, 8 covering pesticide application/use and 4 covering SPC Act & its rules & regulations or structural pest related agencies’ rules & regulations. | <p>June 26, 1998 - Public Hearing. Pending approval by Department of Finance.</p> <p>January 20, 2000 - Public Hearing Board voted to adopt. March 13, 2001 disapproved by the OAL. April 12, 2002 - Public Hearing. Board voted to adopt. Disapproved by the Director July 7, 2002.</p> <p>April 4, 2003 - Public Hearing - Board voted to proceed after 15-Day Notice. Notice mailed June 11, 2003, final comments due June 30, 2003. February 14, 2004 Rulemaking File expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Board voted to proceed after a 15-Day Notice. Notice mailed: May 27, 2005. March 21, 2006 - Approved by the Office of Administrative Law.</p> |
| 1950 | Continuing Education - Deletes language regarding Wood Roof Cleaning & Treatment Continuing Education - Hours.   | Change without Regulatory Effect - Approved by the Office of Administrative Law effective March 26, 2002.  |
|      | Continuing Education - To establish four hours in ethics for license renewal of Operators and Field Representatives.   | Noticed for April 23, 2004 Bd. Mtg. Matter considered and rejected at July 23, 2004 Special Mtg. Withdrawn July 2004 with Notice of Decision Not to Proceed.   |
| 1950 | Continuing Education - Requires that branch 2 and/or 3 licensees gain continuing education hours in structural Integrated Pest Management as part of their license renewal requirements.   | <p>Noticed for the April 18, 2008 Board Meeting.</p> <p>April 18, 2008 - Public Hearing - Board approved to adopt after proposed language modified with a 15-day public comment period.</p> <p>June 26, 2008 - Rulemaking file submitted to DCA for Director review.</p> <p>November 18, 2008 – Clarification of the effective date needed for section 1950 of the rulemaking file.</p> <p>January 6, 2009 – Rulemaking file submitted to DCA for Director review.</p> <p>March 20, 2009 - Approved by the Office of Administrative Law.</p>   |

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| <p><b>1950</b></p> | <p><b>CE IPM Review Committee's Recommended Continuing Education Amendments</b></p>   | <p><b>July 1, 2019 — Presenting New Language to Board for Approval</b></p>   |
| <p>1950.1</p>      | <p>Armed Services Exemption – Grants a one-year extension for a licensee to complete his/her continuing education requirements if his/her license expired while serving for the United States armed services.</p> | <p>Noticed for the January 23, 2009 Board Meeting.<br/> January 23, 2009 - Public hearing, Board voted to send out 15-day notice of modified text.<br/> February 9, 2009 – Notice of modified text sent out.<br/> June 10, 2009 - Rulemaking file submitted to DCA for Director review.<br/> August 5, 2009 – Received approved rulemaking file from DCA.<br/> August 5, 2009 – Final rulemaking file submitted to OAL.<br/> September 16, 2009 – Approved by the Office of Administrative Law</p> |

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| <b>1950.5</b>            | <b>CE IPM Review Committee's Recommended Continuing Education Amendments</b>  | <b>July 1, 2019 — On Hold Pending DPR Regulatory Language</b>  |
| 1950.5(c),(d)(g),(h),[g] | Continuing Education - Requires that course providers administer a second examination.  | March 13, 1996 - Approved by the Office of Administrative Law.   |
| 1950.5(c),(d)(g),(h),[g] | Continuing Education Requirements, Hour Value System, removal of language regarding wood roof cleaning and treatment.   | March 26, 2002 - Approved by the Office of Administrative Law  |
| 1950.5                   | Hour Value System - Require all C.E. providers to administer written tests after licensees complete approved courses in technical or rules and regulations; equivalent activities will no longer be granted C.E.; Board mtg. attendance will drop to 4 hrs total C.E. credit - 1 hr General Ed and 1 hr Rules & Regs per meeting. | Noticed for the April 23, 2004 Board Meeting. Approved by the Office of Administrative Law - July 6, 2005. |

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| 1950.5      | Hour Value System - Establish an hour value for board approved Integrated Pest Management courses.  | <p>Noticed for the April 18, 2008 Board Meeting.</p> <p>April 18, 2008 - Public Hearing - Board approved to adopt.</p> <p>June 26, 2008 - Rulemaking file submitted to DCA for Director review.</p> <p>November 18, 2008 – Clarification of the effective date needed for section 1950 of the rulemaking file.</p> <p>January 6, 2009 – Rulemaking file submitted to DCA for Director review.</p> <p>March 20, 2009 - Approved by the Office of Administrative Law.</p> |
| 1951        | Continuing Education - Makes distinction between field representative, operators and applicators.   | August 12, 1996 - Approved by the Office of Administrative Law.   |
|             | Continuing Education – Licensing examination to replace continuing education examination.   | <p>October 15, 1999 – Public Hearing - referred to committee.</p> <p>April 6, 2000 – Committee recommendations to the Board.</p>  |
|             | Examination in Lieu of C.E. - To change references of operator/field representative to “licensee” and clarify that a passing score is 70% or higher.  | Noticed for the April 23, 2004 Board Meeting. Approved by the Office of Administrative Law - July 6, 2005.  |
| <b>1953</b> | <b>CE IPM Review Committee’s Recommended Continuing Education Amendments</b>  | <b>July 1, 2019 —On Hold Pending DPR Regulatory Language</b>  |
| 1953(a)     | <p>Providers of Continuing Education - C.E. providers that providers do not charge an attendee fee to be exempt from the \$25 course approval fee. Thus eliminating financial burden to the provider.</p> <p>Adopt a revised form 43M-18.</p> | <p>January 11, 2001 - Public Hearing - Board voted to adopt. February 2001-DCA opposed proposal.</p> <p>July 18, 2003 - Public Hearing Board voted to adopt new form. March 17, 2004 Rulemaking file on hold due to Executive Order.</p> <p>Approved by Office Of Administrative Law on August 12, 2004.</p>  |

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| 1953(f)(3)                     | Approval of Activities - Revised Form.  | July 18, 2003 Public Hearing - Board voted to adopt the revised form.<br>Approved by Office Administrative Law, Section 100 Change effective on May 2, 2003.   |
| 1953(f)(3)                     | Section 100 Change – Typo. The dates for the form numbers were duplicated. Delete (New 5/87) and replace it with (Rev. 11/99)<br>Revise the form - Return it back to 43M-38 (5/87). Current form (Rev.11/99) is obsolete.<br><br>Correction of reversal of form numbers 43M-38 and 43M-39 in language and 43M-39 given Rev.10/03 date.    | Section 100 Change to OAL on May 13, 2004.<br>Withdrawn June 17, 2004. Change requires language be re-noticed. Board needs to notice for public hearing.<br><br>Approved by the Office of Administrative Law - July 6, 2005  |
| 1953(3) (A)(C)(D)(E)<br>(4)(g) | Approval of Activities - Clean up language in item (3)(A), define “syllabus” in item (3)(C), revision of form No 43M-39, and language regarding the cost of postage in item (3)(D), delete the words “or products” and language regarding the approval for meetings of in-house staff or employee training being approved in item (4)(g). | Noticed for April 23, 2004 Board Meeting.<br>Approved by the Office of Administrative Law - July 6, 2005.  |
| 1953(f)(3)(D)                  | Approval of Activities - Remove the requirement that continuing education course providers provide course evaluation forms to students.   | Noticed for the April 18, 2008 Board Meeting.<br>April 18, 2008 - Public Hearing - Board approved to adopt.<br>June 26, 2008 - Rulemaking file submitted to DCA for Director review.<br>November 18, 2008 – Clarification of the effective date needed for section 1950 of the rulemaking file.<br>January 6, 2009 – Rulemaking file submitted to DCA for Director review.<br>March 20, 2009 - Approved by the Office of Administrative Law. |

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| 1960 | Fingerprint Requirement – requires all licensees who have not previously been fingerprinted to do so upon license renewal   | <p>March 26, 2015 - Text Approved by Board Members</p> <p>June 4, 2015 - Noticed for Public Hearing</p> <p>July 23, 2015 - Public Hearing – Adopted by Board.</p> <p>August 20, 2015 – To DCA for review.</p> <p>December 1, 2015 – Approved by DCA, to Agency for review.</p> <p>January 21, 2016 – To OAL for final review.</p> <p>February 29, 2016 – Approved and effective.</p>  |
| 1970 | Standards - Construction elements allowing passage of fumigants.  | <p>October 12, 2000 - Public Hearing - Board voted to adopt with modifications.</p> <p>November 23, 2001 - Approved by the Office of Administrative Law.</p>  |
|      | <p>Fumigation Log - Delete the reporting requirements of the name and address of the guard, and delete the date and hour the police department was notified of fumigation. Rev. form 43M-47.</p> <p>Add additional fumigant calculators on the Fumigation Log</p> | <p>January 11, 2001 - Public Hearing - Board voted to adopt. Rulemaking file not complete by deadline of December 1, 2001.</p> <p>April 4, 2003 - Public Hearing. Due to errors in language, re-noticed for July 18, 2003 - Public Hearing. Board voted to adopt new language and revise log form number 43M-47. Approved by Office of Administrative Law on August 12, 2004.</p> <p>Noticed for Public Hearing July 20, 2007.</p> <p>July 20, 2007 - Public Hearing. Board voted to adopt.</p> <p>September 26, 2007 language under DCA legal review by the Director.</p> <p>March 17, 2008 – Approved by the Director, filed with the Office of Administrative Law.</p> <p>April 29, 2008 – Approved by the Office of Administrative Law.</p> |

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| 1970   | Standards and Record Requirements - Fumigating contractors will be required to provide a complete fumigation log to its prime contractors and retain the log for 3 years. | <p>July 18, 2003 - Board voted to place on October 17, 2003 board meeting agenda. October 17, 2003 Board voted not to adopt.</p> <p>Noticed for Public Hearing July 20, 2007. July 20, 2007 - Public Hearing. Board voted to adopt.</p> <p>September 26, 2007 language under DCA legal review by the Director.</p> <p>March 17, 2008 – Approved by the Director, filed with the Office of Administrative Law.</p> <p>April 29, 2008 – Approved by the Office of Administrative Law.</p> |
| 1970.3 | Securing Against Entry - Includes clamshell locks and pins in general description of secondary locks.   | March 13, 1996 - Approved by the Office of Administrative Law.  |
| 1970.4 | Pesticide Disclosure Requirement - Requires primary contractor to retain OFN for three years.   | <p>July 28, 1995 - Board voted to adopt. Technical error - Necessary to re-notice all amendments.</p>   |
|        | Pesticide Disclosure Requirement - Includes the required Occupants Fumigation Notice into regulation.   | May 12, 1995 - Public Hearing. Referred to the Laws and Regulations Committee for further review. December 8, 1995 - Board adopted revision to the OFN. Technical error-Necessary to re-notice all amendments.  |
|        | Pesticide Disclosure Requirement - Requires primary contractor to retain Occupants Fumigation Notice (OFN) for three years. Includes the required OFN into regulation.    | April 28, 1998 – Approved by the Office of Administrative Law.  |
|        | Pet Notification - Amends OFN to include notification regarding neighboring pets.   | <p>January 20, 2000 - Board voted to adopt. June 23, 2000 Board voted not to proceed. January 2005 Board voted to proceed. Noticed for Public Hearing July 15, 2005. December 30, 2005 – Approved by the Office of Administrative Law.</p>  |

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| 1970.4 | Disclosure Requirement - Deletes language regarding Wood Roof Cleaning & Treatment Pesticide.   | March 26, 2002 change without regulatory effect approved by the Office of Administrative Law.  |
|        | Disclosure Requirement – Include presence of conduit language on the OFN  | Noticed for Public Hearing July 20, 2007.<br>July 20, 2007 - Public Hearing. Board voted to adopt.<br>September 26, 2007 language under DCA legal review by the Director.<br>March 17, 2008 – Approved by the Director, filed with the Office of Administrative Law.<br>April 29, 2008 – Approved by the Office of Administrative Law. |
|        | Allows for signed Occupants Fumigation Notice to be in electronic format  | January 15, 2015 - Text Approved by Board Members<br>June 4, 2015 - Noticed for Public Hearing<br>July 23, 2015 - Public Hearing.<br>August 20, 2015 – To DCA for review.<br>February 17, 2016 – To OAL for final review.<br>March 22, 2016 – Approved to become effective July 1, 2016. Industry notified May 31, 2016.               |
| 1970.4 | <b>Pesticide Disclosure Requirement<br/>Additional Updates Allowing Information About Pesticide Use to be Distributed Electronically.</b> | <b>October 8, 2015 – Language approved by the Board</b><br><br><b>January 30, 2018 – Proposed Language Disapproved by DCA Legal</b><br><br><b>July 1, 2019 – Presenting New Language to Board for Approval</b>   |

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| 1970.5 | <p>Aeration - Clarifies that a field representative or operator must be present during aeration.</p> <p>Amendment regarding when licensee is required to be present to correlate with DPR's CAP regulation. – DEAD 05/10/12</p> | <p>August 12, 1996 – Approved by the Office of Administrative Law.</p> <p>December 22, 2010 Notice, ISOR, Language, Std 399 submitted to Linda Otani for review/approval by DPR.</p> <p>March 11, 2011 DPR request this regulation be repealed.</p> <p>April 28, 2011 Board voted to repeal regulation.</p> <p>May 10, 2012 – Public Hearing – Board voted to non-adopt proposed repeal of regulation.</p> |
| 1970.6 | Fumigation - Construction elements allowing passage of fumigants.   | <p>December 16, 1998 - Public Hearing - Action postponed until further input.</p> <p>June 18, 1999 - Board voted to adopt with modifications.</p> <p>November 23, 2001 - Approved by the Office of Administrative Law.</p>   |
| 1971   | Gas Masks – Removed the subsection concerning gas masks. B&P Code section 8505.15 was repealed January 1, 2008  | <p>Noticed for Public Hearing July 24, 2009</p> <p>July 24, 2009 – Board members voted to carryover to next board meeting.</p> <p>October 22, 2009 – Board members voted not to proceed with amending the regulation.</p>  |
| 1973   | Re-entry Requirements - Requires use of proper testing equipment and changes printing on re-entry notice from red to black.   | <p>March 13, 1996 - Approved by the Office of Administrative Law.</p>  |
| 1973   | Notice of Re-entry – Replace a product trade name with the active ingredient.   | <p>Noticed for Public Hearing July 20, 2007.</p> <p>July 20, 2007 - Public Hearing. Board voted to adopt.</p> <p>September 26, 2007 language under DCA legal review by the Director.</p> <p>March 17, 2008 – Approved by the Director, filed with the Office of Administrative Law.</p> <p>April 29, 2008 – Approved by the Office of Administrative Law.</p>  |

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| 1974    | <p>Fumigation Warning Signs - Specifies size and placement of signs.</p> <p>Fumigation warning signs to include the name of the fumigant used and its active ingredient.</p> | <p>March 13, 1996 - Approved by the Office of Administrative Law.</p> <p>Noticed for Public Hearing January 21, 2010<br/>Public hearing held January 21, 2010 – Board voted to adopt .</p> <p>May 18, 2010, Rulemaking File submitted to DPR for approval.</p> <p>September 23, 2010 DPR returned package with approval signatures.</p> <p>September 30, 2010 Rulemaking File submitted to OAL.</p> <p>November 8, 2010 approved by OAL</p>   |
| 1983(i) | <p>Handling, Use and Storage of Pesticides - Clarification of bait station (rodenticide and avicide) reference.</p>  | <p>December 16, 1998 - Public Hearing<br/>December 30, 1998 - Notice of Modification mailed. January 11, 2001 - Public Hearing - Board voted to adopt. Rulemaking File not complete by deadline date of December 1, 2001.</p> <p>April 4, 2003 - Public Hearing - Board voted to adopt. February 14, 2004 Rulemaking File expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Adopted by the Board. March 21, 2006 - Approved by the Office of Administrative Law.</p> |
| 1983(j) | <p>Language regarding the removal of termite bait stations when a contract for service is terminated.</p>  | <p>July 18, 2003 - Public hearing Board voted to adopt with proposed amendments.<br/>Approved by the Office of Administrative Law on August 12, 2004</p>  |

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| 1984    | Proposed regulation to define structural Integrated Pest Management   | <p>October 2007 – Noticed for Public Hearing to adopt new section.</p> <p>March 10, 2008 – Final rulemaking file submitted to the Department.</p> <p>June 6, 2008 – Approved by the Director, filed with the Office of Administrative Law.</p> <p>July 9, 2008 - Approved by the Office of Administrative Law.</p> <p>Noticed for the January 23, 2009 Board Meeting.</p> <p>January 23, 2009 - Public hearing, Board voted to adopt with proposed amendments.</p> <p>June 10, 2009 - Rulemaking file submitted to DCA for Director review.</p> <p>August 5, 2009 – Received approved rulemaking file from DCA.</p> <p>August 5, 2009 – Final rulemaking file submitted to OAL.</p> <p>September 16, 2009 – Approved by the Office of Administrative Law</p> |
| 1990    | Report Requirements - Defines separated reports and structural members, and addresses reporting requirements for carpenter ants/bees. | March 13, 1996 - Approved by the Office of Administrative Law.   |
| 1990    | <p><b>Report Requirements Under Section 8516</b></p> <p><b>Makes various changes to clarify and update existing language.</b></p>     | <b>July 1, 2019 - Staff Preparing Regulatory Proposal</b>  |
| 1990(g) | Report Requirements – Inspection of wooden decks.   | April 28, 1998 - Approved by the Office of Administrative Law.   |
| 1990.1  | Report Requirements - Repeal language under Section 8516.1(b) and (c)(1)(8).  | March 26, 2002 change without regulatory effect - Approved by the Office of Administrative Law.  |

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| 1991  | Report Requirements - Eliminates requirement to cover accessible pellets and frass, and requires replacement of wood members no longer serving purpose to support or adorn the structure.                        | March 13, 1996 - Approved by the Office of Administrative Law.   |
| 1991(A)(B)<br>(C)   | Report Requirements - Specifies the restoration, refastening, removal or replacement of wooden decks, wooden stairs or wooden landings.  | April 28, 1998 - Approved by the Office of Administrative Law.   |
| 1991(a)(5)<br><br>1991(a)(5)                                    | Report Requirements – Allows for reinforcement of fungus infected wood and permits surface fungus to be chemically treated or left as is once the moisture is eliminated.  | April 3, 1996 – Approved by the Office of Administrative Law.  |
| 1991(a)(8)c<br><br><br><br><br><br><br><br><br><br>1991 (cont.) | Report Requirements – Requires registered companies to report that local treatment and/or corrective work will not eradicate other undetected infestations which may be located in other areas of the structure. | October 6, 1995 – Public Hearing - Board voted to non-adopt. Referred to committee to consider the matter of an all-encompassing disclosure statement on all inspection reports addressing inaccessible areas and potential infection and infestations.  |
|   | Report Requirements - Local treatment notification.  | October 15, 1999 Public Hearing - Board voted to adopt.<br>January 11, 2001 - Referred back to committee for comments.<br>October 19, 2001 Public Hearing - Board voted to non-adopt, referred language back to committee. August 31, 2002 publication date expired.<br>October 11, 2002 - Re-noticed -Public Hearing. Board voted to adopt.<br>January 8, 2003 language under DCA legal review by the Director. February 21, 2003 filed with the Office of Administrative Law. Rulemaking file withdrawn from OAL March 27, 2003 pending a 15-Day Notice. File resubmitted to OAL.<br>July 26, 2003 - Approved by the Office of Administrative Law. |

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| 1991(a)(9)            | Report Requirement - Corrective Measures for extermination of a subterranean termite infestation and termite tubes. Exception for above ground termite bait stations. | January 11, 2001 Board voted to amend 1991(a)(9). October 19, 2001 Board passed unanimously to modify language with a 15-Day Notice. Notice mailed January 28, 2002, 1 year past the publication date. Bd. needs to re-notice. Noticed for Public Hearing July 15, 2005. December 30, 2005 – Approved by the Office of Administrative Law.  |
| 1991(13)(A)<br>(B)(C) | Report Requirements - Delete specific recommendations regarding wooden decks, wooden stairs and landings. Language already exists in 1991(a)(5).                      | October 19, 2001 Board voted to repeal the language. August 31, 2002 publication date expired.<br>April 4, 2003 - Public Hearing. Board voted to go forward after 15-Day Notice. Notice mailed June 11, 2003, final comments due June 30, 2003. February 14, 2004 rulemaking file expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Adopted by the Board. March 21, 2006 - Approved by the Office of Administrative Law. |
| 1991(b)(10)           | Report Requirements – Non-substantive correction to heading.  | March 28, 2000 – Filed with the Office of Administrative Law.<br>May 15, 2000 - Approved by the Office of Administrative Law.   |
| <b>1991</b>           | <b>Report Requirements</b><br><b>Makes Various Changes to the Language in Order to Promote Clarity and Consistency</b>  | <b>July 1, 2019 - Staff Preparing Regulatory Proposal</b>   |

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| <b>1992</b>             | <b>Secondary Recommendations</b><br><br><b>Changes Language to Specifically State That Secondary Recommendations Must be Listed on the Notice of Work Completed / Not Completed</b>                                     | <b>July 1, 2019 - Staff Preparing Regulatory Proposal</b>   |
| 1993(a)(b)<br>(c)(d)(e) | Inspection - Specifies that reports shall comply<br>With 8516 and defines different types of inspection reports. Also clarifies difference between duties performed by a field representative, operator and applicator. | March 13, 1996 - Approved by the Office of Administrative Law.  |
|                         | Inspection Reports - Clarifies that the requirement applies to licensed field representative and licensed operators, not license applicators.   | August 12, 1996 - Approved by the Office of Administrative Law.   |
| 1993                    | Deletes language regarding the filing of stamps.  | April 4, 2003 - Public Hearing - Board voted to adopt. February 14, 2004 rulemaking file expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Adopted by the Board. March 21, 2006 -Approved by the Office of Administrative Law.   |
| 1993, 1998              | Report Requirements – To eliminate reference to filing inspection reports and notices of work completed and require companies to file the address of properties inspected.  | January 20, 2000 - Public Hearing<br>Board voted to adopt. March 13, 2001 Rulemaking File disapproved by the Office of Administrative Law.<br>April 4, 2003 - Public Hearing. Sec.1996 proceed with a 15-Day Notice, Sec. 1996.3 re-notice for July 18, 2003 meeting, Sec.1993 & 1998 Board voted to adopt. February 14, 2004 Rulemaking File expired due to Executive Order. Noticed for Public Hearing: April 8, 2005. Adopted by the Board. March 21, 2006 - Approved by the Office of Administrative Law. |

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| 1993.1 | Reinspection Language – To adopt section 1993.1 to require Wood Destroying Pest and Organism Inspection Reports to contain statement that work performed by others must be reinspected within ten days of request at a charge no greater than the original inspection fee. | May 22, 1998 – Rulemaking file disapproved by Office of Administrative Law. December 16, 1998 – Public Hearing. December 30, 1998 - Notice of Modifications mailed. January 11, 2001 - Public Hearing. Board voted to adopt. December 1, 2001 rulemaking file not completed by deadline. April 4, 2003 re-noticed for Public Hearing. Approved by the Office of Administrative Law - July 6, 2005.   |
| 1993.2 | Bait Stations.   | October 19, 2001 Board passed to adopt new language. Publication date expired. October 11, 2002 language re-noticed for Board meeting. December 23, 2002 rulemaking file under review. January 8, 2003 under DCA legal review by the Director. February 21, 2003 filed with the Office of Administrative Law. March 27, 2003 rulemaking file withdrawn from OAL pending a 15-Day Notice. July 26, 2003 - Approved by the Office of Administrative Law. |
| 1993.2 | Termite Bait Stations.<br><br>Defines above and below ground termite bait stations as devices containing pesticide bait. Specifies that use of termite bait stations are a control service agreement.  | October 13, 2016 – Public Hearing was Conducted and Board Directed Staff to Begin Final Rulemaking Process<br><br>October 6, 2017 – Approved by Office of Administrative Law.<br><br>Effective January 1, 2018   |

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| 1993.3 | In-Ground Termite Bait Stations.   | <p>October 12, 2001 Board passed to adopt new language. Publication date expired. Language re-noticed for October 11, 2002 Board meeting. Rulemaking package under review 12-23-02. January 8, 2003 – Under DCA legal review by the Director. February 21, 2003 filed with the Office of Administrative Law. March 27, 2003 rulemaking file withdrawn from OAL pending a 15-Day Notice. July 26, 2003 - Approved by the Office of Administrative Law.</p> |
| 1993.3 | <p>In-Ground Termite Bait Stations.</p> <p>Being repealed. Language in 1993.2 &amp; 1993.4 make this section obsolete.</p>                         | <p>October 13, 2016 – Public Hearing was Conducted and Board Directed Staff to Begin Final Rulemaking Process</p> <p>October 6, 2017 – Approved by Office of Administrative Law.</p> <p>Effective January 1, 2018</p>   |
| 1993.4 | <p>Termite Monitoring Devices.</p> <p>New section defining termite monitoring devices and providing guidelines for their installation and use.</p> | <p>October 13, 2016 – Public Hearing was Conducted and Board Directed Staff to Begin Final Rulemaking Process</p> <p>October 6, 2017 – Approved by Office of Administrative Law.</p> <p>Effective January 1, 2018</p>   |
| 1996   | Pre-Treatment - Specifies Pre-Treatment Inspection Report/Notice of Intent form.   | August 30, 1996 - Public Hearing. Amendment was not adopted. Board referred to Pre-Treatment Committee.   |
|        | Inspection Report – Includes a first page of the Inspection Report for scanning purposes.  | August 13, 1998 – Approved by the Office of Administrative Law.   |

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| 1996   | Requirements for Reporting All Inspections Under Section 8516(b).   | January 18, 2002 Public Hearing - Board voted to adopt. Form Rev. date completed 1-15-03. April 4, 2003 Board again voted to adopt regulatory lang. Noticed for Public Hearing July 15, 2005. December 30, 2005 – Approved by the Office of Administrative Law.   |
| 1996.2 | Revised Inspection Report Form and Standard Notice of work Completed and Not Completed.   | December 16, 2002 - Approved by the Office of Administrative Law.   |
| 1996.1 | <p>Inspection and Completion Tags - The completion tag shall include the method(s) of treatment.</p> <p>Completion tag to include the trade name of any pesticide used and active ingredient.</p> | <p>July 18, 2003 Public Hearing - Board members voted to adopt.</p> <p>Rulemaking file placed on hold due to Executive Order.</p> <p>Approved by Office of Administrative Law August 12, 2004</p> <p>Noticed for Public Hearing January 21, 2010</p> <p>Public hearing held January 21, 2010 – Board voted to adopt. May 18, 2010, Rulemaking File submitted to DPR for approval.</p> <p>September 23, 2010 DPR returned package with approval signatures.</p> <p>September 30, 2010 Rulemaking File submitted to OAL.</p> <p>November 8, 2010 approved by OAL.</p> |
| 1996.2 | Completion Notice – Includes a first page of the Completion Notice for scanning purposes.   | August 13, 1998 – Approved by the Office of Administrative Law.   |
|        | Revised Completion Notice Form.   | <p>January 18, 2002 Public Hearing - Adopted by the Board.</p> <p>December 16, 2002 - Approved by the Office of Administrative Law.</p>   |

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| 1996.3 | <p>Requirements for Reporting property addresses.<br/>Adopt new language that will provide guidelines of what is required when filing the WDO form with the Board.</p> <p>Increase filing fee to \$2.00 on form</p> <p>Increase filing fee to \$2.50 on form</p> | <p>March 17, 2003 Rulemaking file on hold due to Executive Order.<br/>July 18, 2003 Public Hearing - Board voted to adopt after a 15-Day Notice of modified language.<br/>Approved by Office of Administrative Law<br/>July 13, 2004</p> <p>Noticed for Public Hearing July 24, 2009<br/>July 24, 2009 – Board voted to adopt.<br/>Sept. 3, 2009 – Rulemaking file submitted to DCA for review.<br/>January 21, 2010, Board considered 15-day comments to increase fee to \$2.50. Board voted to adopt at \$2.50 per activity.<br/>May 20, 2010 Office of Administrative Law approves Rulemaking File to increase fee to \$2.50 effective July 1, 2010.</p> |
| 1997   | <p>Filing Fee – Inspection Reports and Completion Notices.</p> <p>Filing Fee – Inspection Reports and Completion Notices – Fee increase.</p>   | <p>October 15, 1996 – Approved by the Office of Administrative Law.</p> <p>December 16, 1998 – Public Hearing Adopted by Board.<br/>Rulemaking file not submitted based on recommendations from DCA that fee increase not necessary to fund condition.</p> <p>December 16, 1999 – Non-substantive change without regulatory effect filed with the Office of Administrative Law.<br/>January 28, 2000 - Approved by the Office of Administrative Law.</p>  |

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| <p>1997</p> | <p>Filing Fee – WDO Activity Filing Fee.</p> <p>Filing Fee – Increase WDO Activity Filing Fee to \$2.00.</p> <p>15-Day Modified Text to increase fee to \$2.50 per activity effective July 1, 2010</p> | <p>Noticed for Public Hearing July 24, 2009<br/>July 24, 2009 Board voted to adopt.<br/>Sept. 3, 2009 – Rulemaking file submitted to DCA for review.</p> <p>Dec. 28, 2009 – Board passed unanimously to modify language with a 15-Day Notice. Notice mailed on December 29, 2009, final comments due January 13, 2010</p> <p>January 21, 2010, Board considered 15-day comments to increase fee to \$2.50. Board voted to adopt at \$2.50 per activity.<br/>May 20, 2010 Office of Administrative Law approves Rulemaking File to increase fee to \$2.50 effective July 1, 2010.</p> <p><b>April 19, 2018 – Board Approved Language to Raise Fee From \$2.50 to \$3.00 per Property Address Reported</b></p> <p><b>May 24, 2018 – Staff Submitted Regulatory Proposal to DCA Legal</b></p> <p><b>May 7, 2019 – Approved by OAL. July 1, 2019 Effective Date.</b></p> <p><b>July 1, 2019 – Emergency Reg to Raise Fee From \$3.00 to \$4.00 Undergoing DCA Review</b></p> |
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| 1999.5         | Advertising Guidelines.  | <p>June 18, 1999 – Public Hearing</p> <p>August 27, 1999 – Modified language mailed</p> <p>November 22, 2001 approved by the Office of Administrative Law.</p> <p>September 24, 2002 non-substantive change without regulatory effect approved by the Office of Administrative Law.</p> <p>October 2007 – Noticed for Public Hearing to amend the current regulation.</p> <p>January 2008 – Board moved to request further analysis by Legal Counsel and staff.</p> <p>June 26, 2008 - Rulemaking file submitted to DCA for Director review.</p> |
| 1999.5 (cont.) | Include an introductory statement to clarify the purpose of the regulation. Clarify that certain subsections pertain only to Branch 3 companies. | <p>September 11, 2008 - Rulemaking file submitted to OAL for approval.</p> <p>October 24, 2008 - Rulemaking file disapproved by OAL.</p> <p>February 19, 2009 – Task Force meeting held to discuss OAL’s disapproval</p> <p>March 2009 – Extension granted by OAL.</p> <p>June 2, 2009 – Resubmittal submitted to DCA for Director review.</p> <p>June 8, 2009 – Resubmittal submitted to OAL for approval.</p> <p>July 17, 2009 – Approved by OAL</p>   |

**ASSEMBLY BILL**

**No. 613**

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**Introduced by Assembly Member Low**

February 14, 2019

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An act to add Section 101.1 to the Business and Professions Code, relating to professions and vocations, and making an appropriation therefor.

LEGISLATIVE COUNSEL'S DIGEST

AB 613, as introduced, Low. Professions and vocations: regulatory fees.

Existing law establishes the Department of Consumer Affairs, which is comprised of boards that are established for the purpose of regulating various professions and vocations, and generally authorizes a board to charge fees for the reasonable regulatory cost of administering the regulatory program for the profession or vocation. Existing law establishes the Professions and Vocations Fund in the State Treasury, which consists of specified special funds and accounts, some of which are continuously appropriated.

This bill would authorize each board within the department to increase every 4 years any fee authorized to be imposed by that board by an amount not to exceed the increase in the California Consumer Price Index for the preceding 4 years, subject to specified conditions. The bill would require the Director of Consumer Affairs to approve any fee increase proposed by a board except under specified circumstances. By authorizing an increase in the amount of fees deposited into a continuously appropriated fund, this bill would make an appropriation.

Vote: majority. Appropriation: yes. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

SECTION 1. Section 101.1 is added to the Business and Professions Code, to read:

101.1. (a) Notwithstanding any other law, no more than once every four years, any board listed in Section 101 may increase any fee authorized to be imposed by that board by an amount not to exceed the increase in the California Consumer Price Index, as determined pursuant to Section 2212 of the Revenue and Taxation Code, for the preceding four years in accordance with the following:

(1) The board shall provide its calculations and proposed fee, rounded to the nearest whole dollar, to the director and the director shall approve the fee increase unless any of the following apply:

(A) The board has unencumbered funds in an amount that is equal to more than the board's operating budget for the next two fiscal years.

(B) The fee would exceed the reasonable regulatory costs to the board in administering the provisions for which the fee is authorized.

(C) The director determines that the fee increase would be injurious to the public health, safety, or welfare.

(2) The adjustment of fees and publication of the adjusted fee list is not subject to the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2) of the Government Code.

(b) For purposes of this section, "fee" includes any fees authorized to be imposed by a board for regulatory costs. "Fee" does not include administrative fines, civil penalties, or criminal penalties.

AMENDED IN SENATE JUNE 24, 2019

AMENDED IN ASSEMBLY APRIL 2, 2019

AMENDED IN ASSEMBLY MARCH 19, 2019

CALIFORNIA LEGISLATURE—2019–20 REGULAR SESSION

**ASSEMBLY BILL**

**No. 1788**

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**Introduced by Assembly Member Bloom**  
**(Coauthor: Assembly Member Friedman)**  
*(Coauthor: Senator Stern)*

February 22, 2019

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An act to amend Section 12978.7 of, and to add Section 12978.8 to, the Food and Agricultural Code, relating to pesticides.

LEGISLATIVE COUNSEL'S DIGEST

AB 1788, as amended, Bloom. Pesticides: use of anticoagulants.

~~Existing~~

*(1) Existing* law regulates the use of pesticides and authorizes the Director of Pesticide Regulation to adopt regulations to govern the possession, sale, or use of any pesticide, as prescribed. Existing law prohibits the use of any pesticide that contains one or more of specified anticoagulants in wildlife habitat areas, as defined. Existing law exempts from this prohibition the use of these pesticides for agricultural activities, as defined. Existing law requires the director, and each county agricultural commissioner under the direction and supervision of the director, to enforce the provisions regulating the use of pesticides. A violation of these provisions is a misdemeanor.

This bill would create the California Ecosystems Protection Act of 2019 and expand this prohibition against the use of a pesticide containing specified anticoagulants in wildlife habitat areas to the entire

state. The bill would expand the exemption for agricultural activities to include activities conducted in certain locations and would also exempt from its provisions the use of pesticides by any governmental agency employee who uses pesticides for public health ~~activities and a~~ *activities, a mosquito or vector control district that uses pesticides to protect the public ~~health.~~ health, and the use of any pesticide or rodenticide used for the eradication of nonnative invasive species inhabiting or found to be present on offshore islands in a manner that is consistent with all otherwise applicable federal and state laws and regulations.*

*(2) Existing law provides that the above-described provisions do not preempt or supersede any federal statute or the authority of any federal agency.*

*This bill would additionally provide that these provisions do not preempt or supersede special local need or emergency exemptions for the use of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act.*

~~The~~

*(3) The bill would also prohibit the use of any pesticide that contains one or more specifically identified anticoagulants on state-owned property.*

~~By~~

*(4) By imposing additional duties on county agricultural commissioners, and expanding the definition of a crime, this bill would impose a state-mandated local program.*

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that with regard to certain mandates no reimbursement is required by this act for a specified reason.

With regard to any other mandates, this bill would provide that, if the Commission on State Mandates determines that the bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: yes.

*The people of the State of California do enact as follows:*

1     SECTION 1. (a) The Legislature finds and declares all of the  
2 following:

3     (1) Wildlife, including birds of prey, mountain lions, bobcats,  
4 fishers, foxes, coyotes, and endangered species such as the northern  
5 spotted owl, pacific fisher, and San Joaquin kit fox, are an  
6 irreplaceable part of California's natural ecosystems. As predators  
7 of small mammals, they play an important role in regulating and  
8 controlling the population of rodents throughout the state to  
9 improve public health and welfare.

10    (2) Millions of people annually visit California for the purposes  
11 of viewing and photographing wildlife, and these visits contribute  
12 millions of dollars to California's economy.

13    (3) Urban areas are increasingly being used by predatory  
14 mammals and birds of prey and the public enjoys seeing them and  
15 values these animals and the ecosystem services they provide.

16    (4) The ecosystem services provided by native wildlife predators  
17 are a public trust, just like clean air and water. We, as California  
18 residents, are obligated to conserve these wildlife populations for  
19 future generations of Californians.

20    (5) Scientific research and state studies have found rodenticides  
21 in over 75 percent of animals tested. These rodenticides lead to  
22 direct mortality and chronic long-term health impacts for natural  
23 predators, nontarget organisms, and endangered species and further  
24 steps are needed to reduce rodenticide exposure in nontarget  
25 animals.

26    (6) While all anticoagulant rodenticides have a harmful impact  
27 on nontarget animals, second generation anticoagulant rodenticides  
28 (SGARs) are particularly dangerous to nontarget wildlife as SGARs  
29 are higher potency than prior generations and a single dose has a  
30 half-life of more than 100 days in a rodent's liver. Due to high  
31 toxicity and concern for impact on nontarget wildlife, *the*  
32 Department of Pesticide Regulation banned consumer sales and  
33 use of SGARs in 2014, restricting their purchase and use to  
34 certified pesticide applicators.

35    (7) Despite the 2014 regulations issued by the Department of  
36 Pesticide Regulation, scientific research and state studies have  
37 found no significant reduction in the number of nontarget wildlife  
38 with detectable levels of SGARs in their system. From 2014

1 through 2018, the Department of Fish and Wildlife found SGARs  
2 in more than 90 percent of tested mountain lions, 88 percent of  
3 tested bobcats, 85 percent of protected Pacific fishers tested, and  
4 70 *percent* of northern spotted owls tested. Such data indicates  
5 that a consumer sales and use ban of SGARs has been insufficient  
6 to reduce rodenticide exposure in nontarget animals and further  
7 steps must be taken.

8 (8) Rodenticides can be counterproductive to rodent control by  
9 poisoning, harming, and killing natural predators that help regulate  
10 rodent populations throughout California.

11 (9) *The use of pesticides and rodenticides to reduce or eliminate*  
12 *nonnative invasive species inhabiting or found to be present on*  
13 *offshore islands is critically important for the environmental and*  
14 *ecosystem health of these islands, and for allowing federally and*  
15 *state-listed endangered and threatened species, including species*  
16 *presumed extinct or on the verge of extinction, to recover and*  
17 *propagate back to population levels that existed before the*  
18 *presence of these nonnative invasive species and for avoiding*  
19 *federal or state listing of native and endemic species due to their*  
20 *displacement by nonnative invasive species.*

21 (b) It is the intent of the Legislature in enacting this act to ensure  
22 that aquatic, terrestrial, and avian wildlife species remain a fully  
23 functional component of the ecosystems they inhabit and move  
24 through in California.

25 (c) This act shall be known, and may be cited, as the California  
26 Ecosystems Protection Act of 2019.

27 SEC. 2. Section 12978.7 of the Food and Agricultural Code is  
28 amended to read:

29 12978.7. (a) Except as provided in subdivision (c), (d), or (e),  
30 the use of any pesticide that contains one or more of the following  
31 anticoagulants is prohibited in this state:

32 (1) Brodifacoum.

33 (2) Bromadiolone.

34 (3) Difenacoum.

35 (4) Difethialone.

36 (b) State agencies are directed to encourage federal agencies to  
37 comply with subdivision (a).

38 (c) This section does not apply to ~~either~~ *any* of the following:

1 (1) The use of pesticides used by any governmental agency  
2 employee who complies with Section 106925 of the Health and  
3 Safety Code, who uses pesticides for public health activities.

4 (2) A mosquito or vector control district formed under Chapter  
5 1 (commencing with Section 2000) of Division 3 or Chapter 8  
6 (commencing with Section 2800) of Division 3 of the Health and  
7 Safety Code, that uses pesticides to protect the public health.

8 (3) *The use of any pesticide or rodenticide used for the*  
9 *eradication of nonnative invasive species inhabiting or found to*  
10 *be present on offshore islands in a manner that is consistent with*  
11 *all otherwise applicable federal and state laws and regulations.*

12 (d) (1) This section does not apply to the use of pesticides for  
13 agricultural activities, as defined in Section 564.

14 (2) For purposes of paragraph (1), “agricultural activities”  
15 include activities conducted in any of the following locations:

16 (A) A warehouse used to store foods for human or animal  
17 consumption.

18 (B) An agricultural food production site, including, but not  
19 limited to, a slaughterhouse ~~and~~ or cannery.

20 (C) A factory, brewery, or winery.

21 (e) This section does not preempt or supersede any federal  
22 statute or the authority of any federal ~~agency.~~ *agency, including*  
23 *special local need or emergency exemptions for the use of*  
24 *pesticides under the Federal Insecticide, Fungicide, and*  
25 *Rodenticide Act (7 U.S.C. 135 et seq.).*

26 SEC. 3. Section 12978.8 is added to the Food and Agricultural  
27 Code, to read:

28 12978.8. (a) Except as provided in subdivision (d), the use of  
29 any pesticide that contains one or more of the following  
30 anticoagulants is prohibited on any state-owned property in  
31 California:

32 (1) Chlorophacinone.

33 (2) Diphacinone.

34 (3) Warfarin.

35 (b) State agencies are directed to encourage federal agencies to  
36 comply with subdivision (a).

37 (c) This section does not apply to the use of pesticides for  
38 agricultural activities, as defined in Section 564.

39 (d) This section does not preempt or supersede any federal  
40 statute or the authority of any federal agency.

1 SEC. 4. No reimbursement is required by this act pursuant to  
2 Section 6 of Article XIII B of the California Constitution for certain  
3 costs that may be incurred by a local agency or school district  
4 because, in that regard, this act creates a new crime or infraction,  
5 eliminates a crime or infraction, or changes the penalty for a crime  
6 or infraction, within the meaning of Section 17556 of the  
7 Government Code, or changes the definition of a crime within the  
8 meaning of Section 6 of Article XIII B of the California  
9 Constitution.  
10 However, if the Commission on State Mandates determines that  
11 this act contains other costs mandated by the state, reimbursement  
12 to local agencies and school districts for those costs shall be made  
13 pursuant to Part 7 (commencing with Section 17500) of Division  
14 4 of Title 2 of the Government Code.

AMENDED IN SENATE MARCH 5, 2019

**SENATE BILL**

**No. 53**

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**Introduced by Senator Wilk**

~~(Coauthor: Assembly Member Lackey)~~

**(Coauthors: Senators Bates, Glazer, Jones, and Portantino)**

*(Coauthors: Assembly Members Choi, Gallagher, Lackey, Mathis, and  
Patterson)*

December 10, 2018

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An act to amend Section 11121 of the Government Code, relating to state government, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

SB 53, as amended, Wilk. Open meetings.

The Bagley-Keene Open Meeting Act requires that all meetings of a state body, as defined, be open and public and that all persons be permitted to attend and participate in a meeting of a state body, subject to certain conditions and exceptions.

This bill would specify that the definition of "state body" includes an advisory board, advisory commission, advisory committee, advisory subcommittee, or similar multimember advisory body of a state body that consists of 3 or more individuals, as prescribed, except a board, commission, committee, or similar multimember body on which a member of a body serves in ~~his or her~~ *their* official capacity as a representative of that state body and that is supported, in whole or in part, by funds provided by the state body, whether the multimember body is organized and operated by the state body or by a private corporation.

This bill would declare that it is to take effect immediately as an urgency statute.

Vote:  $\frac{2}{3}$ . Appropriation: no. Fiscal committee: yes.

State-mandated local program: no.

*The people of the State of California do enact as follows:*

1 SECTION 1. Section 11121 of the Government Code is  
2 amended to read:

3 11121. As used in this article, “state body” means each of the  
4 following:

5 (a) Every state board, or commission, or similar multimember  
6 body of the state that is created by statute or required by law to  
7 conduct official meetings and every commission created by  
8 executive order.

9 (b) A board, commission, committee, or similar multimember  
10 body that exercises any authority of a state body delegated to it by  
11 that state body.

12 (c) An advisory board, advisory commission, advisory  
13 committee, advisory subcommittee, or similar multimember  
14 advisory body of a state body, if created by formal action of the  
15 state body or of any member of the state body, and if the advisory  
16 body so created consists of three or more persons, except as  
17 provided in subdivision (d).

18 (d) A board, commission, committee, or similar multimember  
19 body on which a member of a body that is a state body pursuant  
20 to this section serves in ~~his or her~~ *their* official capacity as a  
21 representative of that state body and that is supported, in whole or  
22 in part, by funds provided by the state body, whether the  
23 multimember body is organized and operated by the state body or  
24 by a private corporation.

25 (e) Notwithstanding subdivision (a) of Section 11121.1, the  
26 State Bar of California, as described in Section 6001 of the  
27 Business and Professions Code. This subdivision shall become  
28 operative on April 1, 2016.

29 SEC. 2. This act is an urgency statute necessary for the  
30 immediate preservation of the public peace, health, or safety within  
31 the meaning of Article IV of the California Constitution and shall  
32 go into immediate effect. The facts constituting the necessity are:

1 In order to avoid unnecessary litigation and ensure the people's  
2 right to access the meetings of public bodies pursuant to Section  
3 3 of Article 1 of the California Constitution, it is necessary that  
4 this act take effect immediately.

O

# October

2019

| Monday | Tuesday | Wednesday                          | Thursday                           | Friday | Saturday | Sunday |
|--------|---------|------------------------------------|------------------------------------|--------|----------|--------|
|        | 1       | 2                                  | 3                                  | 4      | 5        | 6      |
| 7      | 8       | 9                                  | 10                                 | 11     | 12       | 13     |
| 14     | 15      | 16                                 | 17                                 | 18     | 19       | 20     |
| 21     | 22      | 23<br>SPCB Meeting<br>(Sacramento) | 24<br>SPCB Meeting<br>(Sacramento) | 25     | 26       | 27     |
| 28     | 29      | 30                                 | 31                                 |        |          |        |
|        |         |                                    |                                    |        |          |        |

# March

# 2020

| Monday | Tuesday | Wednesday                          | Thursday                           | Friday | Saturday | Sunday |
|--------|---------|------------------------------------|------------------------------------|--------|----------|--------|
|        |         |                                    |                                    |        |          | 1      |
| 2      | 3       | 4                                  | 5                                  | 6      | 7        | 8      |
| 9      | 10      | 11<br>SPCB Meeting<br>(Sacramento) | 12<br>SPCB Meeting<br>(Sacramento) | 13     | 14       | 15     |
| 16     | 17      | 18                                 | 19                                 | 20     | 21       | 22     |
| 23     | 24      | 25                                 | 26                                 | 27     | 28       | 29     |
| 30     | 31      |                                    |                                    |        |          |        |

# July

# 2020

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|--------|---------|-----------|----------|--------|----------|--------|
|        |         | 1         | 2        | 3      | 4        | 5      |
| 6      | 7       | 8         | 9        | 10     | 11       | 12     |
| 13     | 14      | 15        | 16       | 17     | 18       | 19     |
| 20     | 21      | 22        | 23       | 24     | 25       | 26     |
| 27     | 28      | 29        | 30       | 31     |          |        |
|        |         |           |          |        |          |        |