

# Conservation Training for Tour Guides

Benefits for Both Tourism and Resource Protection

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# Conservation Trainings for Tour Guides:

## Benefits for Both Tourism and Resource Protection



### Program Background

**Nature-based tourism.** Travel taken largely for the purpose of enjoying natural attractions or wilderness areas, wildlife, and/or engaging in outdoor activities.<sup>1</sup>

Nature-based tourism is frequently described

Open

### History

In 2017, MMCAT and Nā Koa Manu Conservation, Inc. (501(c)(3); NKMC) pursued a relationship to facilitate donations to help fund a new website, training products, and marketing.

- Website: [mauimauka.org](http://mauimauka.org)

Open

### Development of Training

#### Initial Needs Assessment and Focus Groups:

In 2013, 18 different tour companies participated in e-mail and phone surveys and focus groups to determine the need for the program, barriers to participation, and the desired outcomes.

We worked closely with tour operators to address scheduling barriers. Feedback suggested that incorporating trainings into already scheduled employee orientation or staff meetings would be best.



Open

### Outcomes from 2013-June 2018

- 23 trainings
- 282 guides from 87 companies representing 15 different tour types
- Five guest speakers, from different conservation organizations
- Based on pre and post assessments given at trainings, there was an average **76% increase in guide knowledge** per

Open

### Future Directions/Conclusions:

Through the MMCAT program, the conservation messages of EMWP, MISC, MFBRRP, and other conservation partners are successfully being incorporated into tours, enhancing the visitor experience and benefitting tour operators and conservation organizations.

Open

# Program Background

**Nature-based tourism.** Travel taken largely for the purpose of enjoying natural attractions or wilderness areas, wildlife, and/or engaging in outdoor activities.<sup>1</sup>

- frequently described as one of the fastest growing sectors of the world's largest industry (tourism) and is often used as a rationale for conserving the natural environment.<sup>2</sup>
- Interpretation of nature provides greater visitor satisfaction levels, which promotes continued visitation, while also encouraging visitors to be more considerate of the environment. This in turn facilitates greater conservation ethics and practices that support biodiversity.



# Program Background

- According to the Hawai'i Tourism Authority (HTA), Hawai'i consistently ranks among the highest percentile as the preferred destination for “unique scenery unlike anywhere else” and visitors ranked their top reason for returning to Hawai'i as because of its stunning natural beauty.<sup>3</sup>
- A healthy environment is not only attractive to tourists; it is essential. Maui County Tourism Industry Strategic Plan recognizes the importance of this; one of the four strategic directions in the plan is that “We will increase efforts to minimize impacts on our natural environment as well as on our infrastructure, and to feature environmental quality in marketing and visitor experiences.”<sup>4</sup>
- Over 9 million visitors came to Hawai'i in 2017 and Hawai'i's tourism industry is the largest single source of private capital into the State's economy and is one of the largest generators of jobs (204,000 jobs in 2017)<sup>5</sup>. As tour activities increase in natural areas, so should environmental education and involvement from conservation communities.
- By providing tourists and locals with the knowledge on how to support our unique natural environment, through well-educated and trained tour guides, MMCAT aims to reduce the spread of invasive species, reduce overconsumption of resources, and increase awareness and appreciation of native species.



# Program Description

- In 2013, through a grant with HTA, East Maui Watershed Partnership (EMWP), Maui Forest Bird Recovery Project (MFBRP), and Maui Invasive Species Committee (MISC) collaborated to develop Maui Mauka Conservation Awareness Training (MMCAT). These trainings focus on watersheds, native flora and fauna, and invasive species. Presentations are simple, educational, and fact-based. MMCAT is a train-the-trainer model of working with tourists.



**MMCAT Program Goal:** to create a mutually beneficial partnership between conservation professionals and tour guides that enhances the quantity and quality of environmental interpretation about Maui's unique species and environments.





# MMCAT Timeline

2013

**HTA Natural Resource Grant:** received to pilot a program to tour guides operating in East Maui.

**Needs Assessment:** given to 43 individuals representing 35 tour companies.

**Product Development:** MMCAT logo, 3 fact sheets, t-shirts, stickers, database.

**Training Development:** 1 hour course with EMWP, MFBRP and MISC presentations.

**Training:** 8 courses in a central location.

2014

**Ongoing Project Review**

**End HTA Natural Resources Grant**

**EMWP, MFBRP, and MISC agree to continue doing 4 training courses a year:** now offered to ALL Maui tour guides.

**Training:** 1 course in a central location.

2015

**Ongoing Project Review**

**Training:** 5 courses at a central location.

2016

**Ongoing Project Review**

**Training:** 4 courses at a central location.

2017

**Reassessment of Training:** change format to 3 hours and include other conservation partners as guest speakers.

**Create Facebook Page**

**Create Website**

**Perused a relationship with Nā Koa Manu**

**Conservation:** allowing donations to be collected to help with program costs.

**Training:** 4 courses held at various locations around Maui.

2018

**Ongoing Project Review**

**Training:** 2 courses, 2 scheduled.

**Hawai'i Conservation Conference:** Poster Presentation.



# History

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- Website: [mauimauka.org](http://mauimauka.org)
- Social Account: [facebook.com/mauimaukaconservation/](https://facebook.com/mauimaukaconservation/)



# Development of Training

## Initial Needs Assessment and Focus Groups:

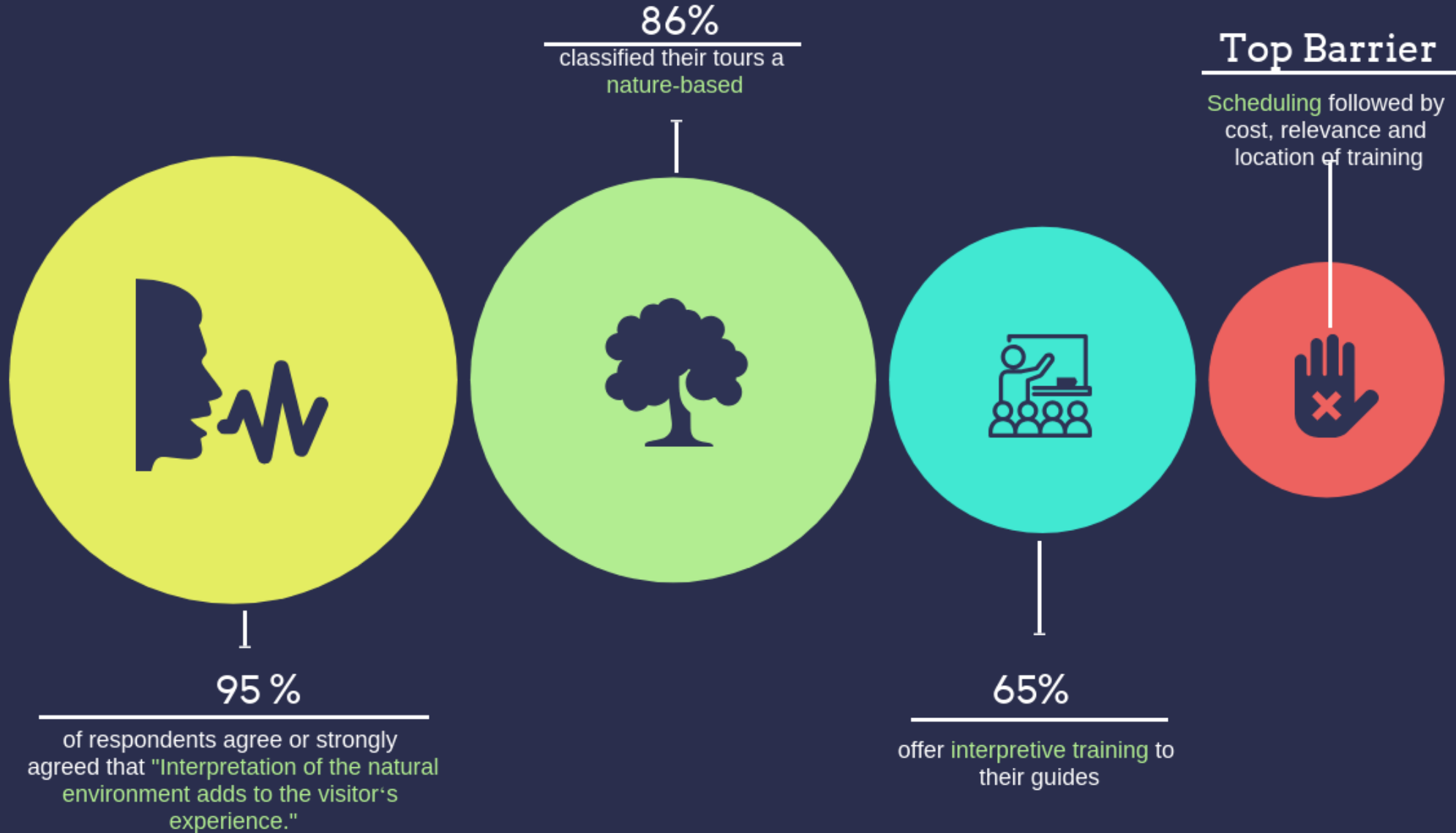
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# Key Findings

From tour guides and operators working in East Maui, 2013



# Based on the results of this assessment, we developed visual, fact-based materials:

- A Logo
- Take Home Materials
- Training Presentations & Program
- Pre and Post Assessments



# LOGO DEVELOPMENT

Each element of our logo has an associated 'ōlelo no'eau and statement.

## 'ŌHI'A TREE

Malia paha he iki 'unu, pa'a ka pōhaku nui 'a'ole e ka'a  
*Perhaps it is the small stone that can keep the big rock from falling.*  
As the keystone species of the watershed, 'ōhi'a supports the entire ecosystem.



## 'I'IWI BIRD

Ke kumu lehua muimui i ka manu  
*A lehua in bloom attracts birds as an attractive person draws the attention of others.*

From 1 bird came 54. Only 26 are left today.



## RAINDROP

Hahai no ka ua i ka ulua 'au  
*The rain always follows the forest*

Native forests increase cloud water capture by 30%



## CANOE

He wa'a he moku, he moku he wa'a  
*The canoe is an island, an island is a canoe.*  
We call you into action to malama "your canoe"

## RAT



'A'ohe mālama, pau i ka 'iole  
*If you do not take care of your possessions, it will be stolen by rats/he will not suffer losses*  
A new pest reaches Hawaii every 18 days

Each element of the **logo** refers to a natural resource or a management issue. 'Ōlelo, Hawaiian proverbs, are associated with each symbol (as described by Pukui 1983)<sup>6</sup>.




Three different 6" x 9" infographic and field guide cards display the important facts and species associated with the conservation priorities of EMWP, MISC and MFBRRP. Starting in 2017, guest speakers use an MMCAT template to provide five of their own facts.


### Front

**Hawaiian Forest Birds found on Maui**


**Kiwikiu**  
Very Rare, Endangered.



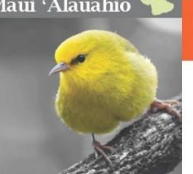
**'Ākohekohe**  
Rare, Endangered.



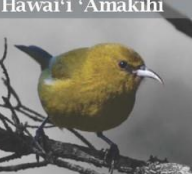
**'Ūiwi**  
Threatened.




**Maui 'Alaiahio**



**Hawai'i 'Amakihi**



**'Apapane**




### Back

**NATIVE HAWAIIAN FOREST BIRDS ARE UNIQUE.**

Endemic means  
**"FOUND NOWHERE ELSE IN THE WORLD."**

In Hawai'i, **54** endemic forest bird species evolved from **1** species of finch.




Today, less than **1/3** of these endemic species still exist.

**THE EXTINCTION CRISIS IS ONGOING.**

Without intervention and management, these species could disappear within your lifetime.


**THE KIWIKIU** is the most critically endangered forest bird on Maui.

Global Population: **<312**




**FOREST RESTORATION IS KEY.**

Creating more high elevation habitat in Hawai'i is critical to forest bird recovery.



**MAUI FOREST BIRD RECOVERY PROJECT** has a mission to develop and implement conservation techniques to recover endangered forest birds and to restore their habitats through research and management. [www.mauiforestbirds.org](http://www.mauiforestbirds.org)



### Front

**PROTECTING HAWAII'S WATERSHED**

Native Hawaiian forests can increase water capture by up to **50%** more than rainfall alone.



**OVER 1,000 PLANTS EVOLVED** from only 270 plant colonizers.

SO FAR 39% OF THE NEARLY 120,000 ACRE EAST MAUI WATERSHED PARTNERSHIP LANDS ARE FENCED AND MANAGED FOR ZERO UNGULATE PRESENCE.

**75%** of Maui's native habitat has been LOST, with the majority of that area below 2500ft elevation.

**90%** of Hawai'i's native flora is endemic, existing nowhere else in the world!

**FERAL PIGS** can dig up an area the size of a football field in 1 week.



[www.eastmauiwatershed.org](http://www.eastmauiwatershed.org)




### Back

**Found Here & Nowhere Else in the World**

**'Ōhi'a**  
(*Metrosideros polymorpha*)



**Naupaka**  
(*Scaevola taccada*)



**Carnivorous Caterpillar**  
(*Eupithecia scordodes*)



**'Iliahi/Sandalwood**  
(*Santalum huahua*)



**Koa**  
(*Acacia koa*)



**'Opelu**  
(*Lobelia grayana*)



### Front

**INVASIVE SPECIES TO REPORT**  
**MISC: 808-573-6472**



**little fire ant**  
*Wasmannia auropunctata*

**rapid 'ōhi'a death**  
*Ceratocystis fimbriata*



**coqui frog**  
*Eleutherodactylus coqui*



Prevent and report high priority invasive species like coqui frogs, little fire ants, and rapid 'ōhi'a death.

Maui Invasive Species Committee  
 808-573-6472  
[mauiinvasive.org](http://mauiinvasive.org)  
[miscpr@hawaii.edu](mailto:miscpr@hawaii.edu)




### Back

**HAWAII**  
A story of invasion

A new species arrives in Hawai'i on the average of every **18 days**.



**INVASIVE SPECIES** = harm to quality of life, environment, and economy

Of all plants naturalized in Hawai'i, **46%** are **INTRODUCED**



**75%** of land area in Hawai'i is lost to non-native species



**Without predators**, introduced species can reach abnormal densities and become invasive.

For example, coqui frog populations in Hawai'i are **2-3X** more dense than in their native Puerto Rico.

**Invasive species = #1 threat** to native species in Hawai'i.



T-shirts, mugs, and/or window decals with the MMCAT logo are available (dependent on year and funding) to program participants.



# Training Presentations & Program

- Each organization created their own **presentation** to give to the tour guides about their respective specialty. From 2013-2016, the training program was one hour long, with each organization giving a 15 minute presentation. Due to feedback, the training changed to a three hour format that also includes a guest speaker from other conservation organizations. This has been the format since 2017.
- Trainings are offered during slow tourism months and on National Park commercial free days. Since location was one of the barriers to the trainings, the option to have the training at a tourism operator's place of business if there are more than seven guides is always offered.





# Maui Mauka Conservation Awareness Training

Content of 3 hour training



## Conclusion

- Volunteer opportunities
- Q&A
- Post-assessment

## Introduction

- History of program
- Intent of training
- Introduction of speakers and attendees
- Pre-assessment

## \*Guest Conservation Program

Featured speakers rotate and have included Department of Land & Natural Resources, West Maui Mountains Watershed Partnership, Maui Nui Seabird Recovery Project, Leeward Haleakala Watershed Restoration Partnership

## Break

## Invasive Species

- Difference between introduced and invasive species
- Impacts from pest species
- Specific information on the incipient pests tourists could encounter



## Forest Birds

- How birds made it to islands and evolved into unique species
- Current population status and threats
- Conservation and recovery actions

## \*Natural History of Hawaii

- Wind, Water, Wing
- Evolution in Isolation
- Unique species assembly
- Rates of introduction: prior to human contact, Polynesian, current
- Definitions of native, introduced, invasive

## Watersheds

- What is a watershed
- Composition of native forest
- Endemism in native plants
- Efforts to protect native forested ecosystems
- Impacts of feral ungulates



\* These components of the training were added as part of the 3 hour training along with expansion of each section from 10 to 30 minutes.

Certificate of Completion for each attendee recognizing their commitment to Maui's natural resources.





# Pre and Post Assessments

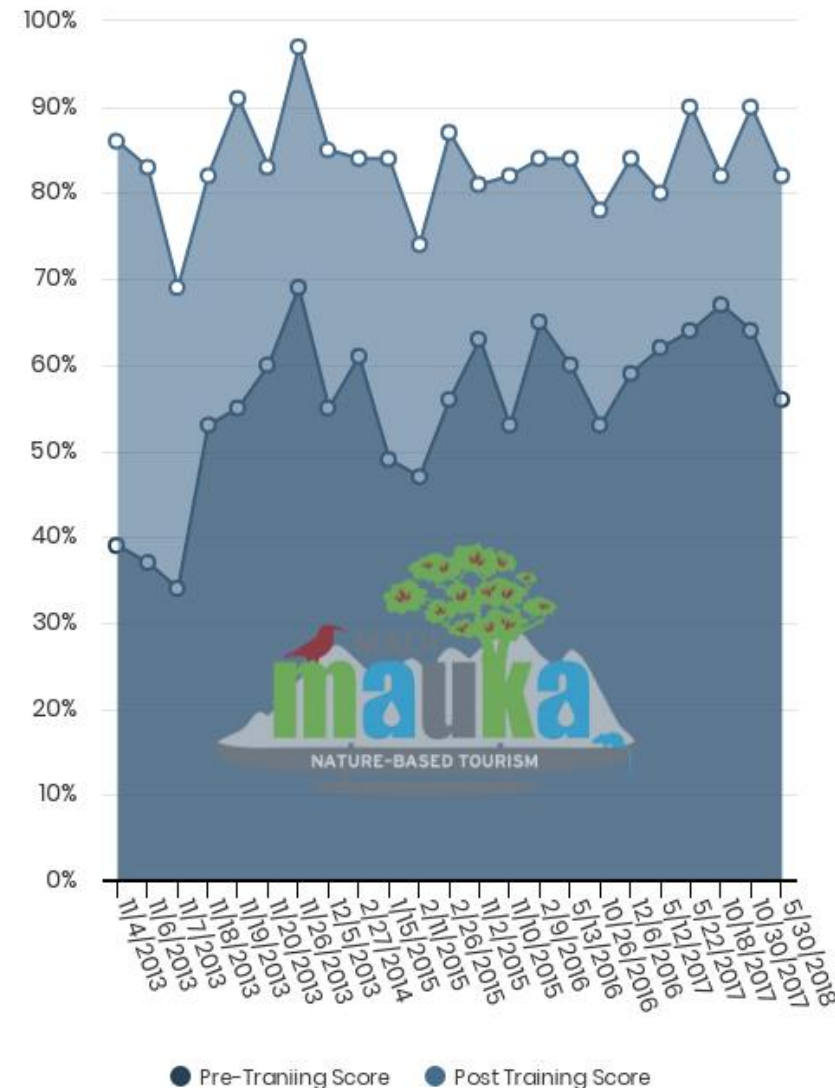
- Handed out at each training to gauge training effectiveness and allow participants to offer suggestions.
- Results from 2013- June 2018
  - 23 trainings
  - 282 guides from 87 companies representing 15 different tour types
  - Five guest speakers, from different conservation organizations



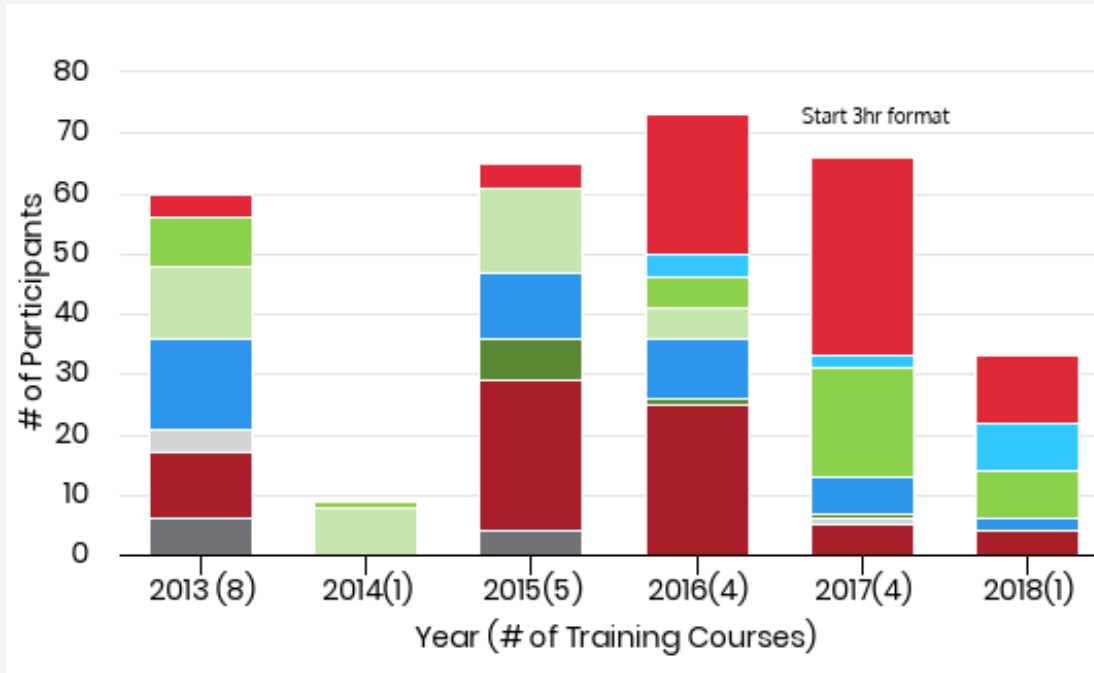
- An average 26% increase in guide knowledge per training
- 100% of 282 attendees marked that "YES" this training was helpful!

## Pre & Post Assessments

We give all participants a knowledge assessment before and after the training to evaluate training efficacy.



# Participants by Tour Type



Bike
  Drive
  Helicopter
  Hike
  Experiential
  Zipline
  Conservation
  Marine
  Other

Experiential=paragliding, rappelling, tasting tours, farm tours, horseback, segway, personal guides

Other=booking agents, county workers, educators, unknown

## Examples of companies that have attended trainings:



# MMCAT in Action and Quotes from Tour Companies

**"We hold Maui Mauka(MMCAT) as a foundation base line for our drivers and have enjoyed and appreciated all that you have offered. We are always interested in the classes you have to offer."**

Roni Gonsalves | Manager - Maui  
Polynesian Adventure Tours



**"Maui's adventurous visitors are always thirsty for environmental knowledge about their surroundings. These informational cards provide valuable education for staff and guests"**

Joseph Imhoff | Program Manager  
Skyline Conservation Initiative



**"I recently had two biologists from Minnesota (Mike and Fern) come along on a hiking tour and they really loved hearing about all the conservation efforts underway. I snapped a photo of them checking out a MFBRP (fact) sheet and a MISC (fact) sheet."**

Beth Lariviere | Owner  
Explore Maui Nature



# Future Directions/Conclusions

- Through MMCAT, the conservation messages of EMWP, MISC, MFBRP, and other conservation partners are successfully being incorporated into tours, enhancing the visitor experience and benefitting tour operators and conservation organizations.
- By being a part of NKMC, MMCAT can accept donations that will help fund the continuation of these trainings. Cost was initially identified as a potential barrier to participation, so the program is currently offered free of charge but donations are solicited.
- Anecdotally, the program appears to have increased awareness and support of conservation efforts. Attendees often ask how to volunteer and help organizations and the environment; information on this is now provided in the training and through the website. We hope that the level of awareness of conservation issues and how to report them is heightened by people attending these trainings and educating others. For example, one participant did report a dead 'i'iwi in her yard stating she could properly identify it from the training and knew to report it as an odd incident.





# Future Directions/Conclusions

- The training is continually updated to fit the needs of the community and stay aligned with current conservation issues. Options for the future:
  - Some tour agencies have high employee turnover while others tend to have longer retention with less need for yearly trainings. A tiered training structure could be developed.
  - Guides have requested field visits and a way to offer the training online. Due to limited resources, this is not currently available, but could be added in the future.
  - Collaboration with the Hawai'i Ecotourism Association, Hawai'i's only third party sustainable tourism certification organization.
  - Include rapid 'ōhi'a death (ROD) workshop.
  - MMCAT has the potential to be a standalone organization rather than a peripheral project of the three conservation groups currently involved.
  - MMCAT could serve as a statewide model available for customization on other islands.



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