

The Journal of the American Association of Zoo Keepers, Inc.

# Animal Keepers' Forum

July 2016, Volume 43, No. 7



**189 ABOUT THE COVER**

**190 FROM THE PRESIDENT**

**192 COMING EVENTS**

**193 THANK YOU SPONSORS  
MESSAGE FROM THE SAFETY COMMITTEE**

**194 AAZK NATIONAL CONFERENCE**

#### **FEATURED ARTICLES**

**196-197**

*“Fresh” Frozen Browse for O.2 Giraffe (Giraffe camelopardalis reticulata) for the Winter*  
**Mary Ann Cisneros and Bobbi Crouch**

**198-201**

*Environmental Rewards Points? Examining the Palm Oil Crisis and Brainstorming for Change*  
**Chelsea Weaver**

#### **TRAINING TALES**

**202-205**

*Talkin’ About Takin: The Role of Training in Preparation for Pre-Shipment Medical Procedures*



#### **ENRICHMENT OPTIONS**

**206-209**

*Enrichment Program Makeover*

#### **MY AAZK**

**210-212**

*Sticking My Neck Out for Giraffe, a Keeper’s Journey to Africa to Help Conserve Giraffe*

# Environmental Rewards Points? Examining the Palm Oil Crisis and Brainstorming for Change

Chelsea Weaver, Zoo Keeper II  
The Columbus Zoo and Aquarium  
Columbus, Ohio

## Introduction

Human actions such as habitat destruction, exploitation of natural resources, introducing invasive species, pollution, poaching, and induced climate change may be the cause of the next mass extinction event (Alvarado-Quesada, Hein, Weikard, 2013; Tilman, 2012). The palm oil industry includes all of these actions. Palm oil, due to high profitability and wide-range of uses, is a important crop in a growing number of regions throughout the world (Laurance, Koh, Butler, Sodhi, Bradshaw, Neidel, Consunji, and Vega, 2010). Unfortunately, the increasing demand for palm oil has resulted in negative impacts on the environment. Threats to biodiversity are extremely high in regions such as Southeast Asia, which has become a mecca for oil palm agriculture (Wilcove and Koh, 2010). Oil palm trees are not native to Southeast Asia and in order to create the oil palm plantations, natural forests must be cleared and the wildlife that call these areas home are put in jeopardy and faced with extinction (Laurance et al., 2010). According to Tunnicliffe and Webber (2012), orangutans (*Pongo pygmaeus* and *Pongo abelii*) have lost approximately 90% of their environment in 20 years. Because of these reasons, it is crucial that the negative impacts of the palm oil industry are addressed and altered (Wilcove and Koh, 2010).

So what can be done to stop the palm oil industry from destroying the habitats that native wildlife relies on? Boycotting the palm oil industry alone is not the answer and could actually be more of a problem than a solution because it would lower the economy for the people of the region as well as allow for even more destructive agriculture to replace it (Wilcove and Koh, 2010). Instead, the emphasis should be on stopping future deforestation and making the palm oil industry sustainable, which may save the biodiversity in these regions (Wilcove and Koh, 2010). Sustainability, however, is not an easy status to achieve. For one, the key players of the palm oil industry (the oil palm growers, the palm oil producers, the palm oil product manufacturers, and the retailers of palm oil products) all need to agree on sustainable practices (Wilcove and Koh, 2010). In order to get them to all agree, pressure must be placed on them to push for a sustainable palm oil industry. This pressure can come in many forms such as monetary incentives for those companies who convert to sustainable palm oil, monetary punishments (such as boycotts of non-sustainable palm oil products) to discourage non-sustainable palm oil use, and strict regulations on converting land for palm oil plantations (Wilcove and Koh, 2010). Non-governmental





Pygmy elephants in need of relocation.



Sepilok Orangutan Rehabilitation Centre

organizations (NGOs) have had success in furthering the sustainable palm oil movement by applying pressure to government agencies and by joining forces with other organizations involved in this movement such as the Roundtable on Sustainable Palm Oil (Khor, 2011; Tan, Lee, Mohamed, Bhatia, 2009).

The Roundtable on Sustainable Palm Oil (RSPO) was created to promote sustainable palm oil and place necessary pressures on the palm oil industry to adopt sustainability principles (Ruyschaert and Salles, 2014). Products using certified sustainable palm oil can have labels that help consumers to make conservation-minded decisions about which products to buy and which companies to support (Roundtable on Sustainable Palm Oil, 2014). Along with the RSPO, zoological institutions including the Cheyenne Mountain Zoo, are raising awareness about the palm oil crisis and sustainable palm oil products through educational campaigns and a smart phone application (Bredahl, 2012). These organizations are making palm oil knowledge accessible to everyone and trying different tactics to increase palm oil sustainability. However, there is always more that can be done.

As zoo professionals, many of us currently work with or have worked with animals affected by the palm oil industry. Although we may try our best to discuss the palm oil crisis as a threat to these animals with zoo guests through ways such as keeper talks and exhibit signs, it is simply not enough. Increased education about palm oil and its threats to biodiversity around the world is needed in order to help people understand what they can do to help. The media can play an extremely important role in the decisions we make. There are some social media campaigns out there regarding the palm oil crisis, such as the “Don’t Palm Us Off” campaign (Don’t Palm Us Off, 2015), but people must be actively sharing this campaigns and paying attention in order to facilitate education. Radio, television, and increased internet focusing on charismatic megafauna affected by the palm oil industry could build awareness. Another potential way to increase palm oil awareness is through formal education. This topic could easily be discussed throughout many science grade levels all the way through college. By raising youth awareness through lesson plans and inquiry projects, we could be increasing the amount of current and future conservation advocates. Through these methods of education, consumers may be more likely to purchase sustainable palm oil products instead of products containing conflict palm oil. Education is one of the first steps, but alone may not have the power to sway behavior and should instead be paired with other methods (Clayton, Litchfield and Geller, 2013).

As part of my Master’s coursework through Project Dragonfly’s Global Field Program, I am working towards making conservation easier and more accessible for everyone to be involved with. If conservation is a part of our everyday lives, it is more likely we will stay involved and educated on current issues. Making conservation convenient and exciting should help to engage more people to participate. However, due to the continuous evolution of human behavior, the methods used to increase involvement in conservation will also need to adapt. According to a study by Clayton, Litchfield, and Geller (2013), human behavior in regards to environmental engagement can be influenced by financial incentives, time, and effort. The idea that human behavior can be molded by certain incentives mimics the main idea behind positive reinforcement training. As zoo keepers, we understand there is an increase in the likelihood that a behavior will continue if the individual is positively reinforced for doing the behavior initially. As discussed in Don’t Shoot The Dog, these techniques, such as receiving verbal praise or gifts, can be affective with human behavior as well (Pryor, K., 2009). Therefore, if pro-environment behaviors are reinforced through some form of a reward, it would suggest that this would increase the likelihood that humans would get involved, stay involved, and make a difference in conservation efforts. These ideas formed the basis for the concept of creating a Sustainable Palm

## Increased education about palm oil and its threats to biodiversity around the world is needed in order to help people understand what they can do to help.

Oil Shopper Rewards program. Similar to the fuel rewards points or other discount rewards cards offered by many grocery chains, this program would provide incentives for consumers to purchase sustainable palm oil products. If this program becomes a reality, I hope that it would eventually include other sustainable movements such as seafood and forestry. After discussing this idea with some of my instructors, I decided to research this concept further. As part of my Master’s coursework, I conducted research on palm oil knowledge, current sustainable palm oil shopping practices, and likelihood to participate in the rewards program if it were created.

## Methods

The survey contained 10 questions regarding participant ages (ranging from 18-years-old to over 50) and current household living status (as in who they share their home with), desire to make smart shopping choices, knowledge of the palm oil crisis, shopping habits in regards to sustainable palm oil products, and likelihood that consumers would participate in the incentive-based shopper rewards program for sustainable palm oil products. The survey questions were designed to directly relate to the sustainable palm oil shopper reward program idea and to obtain information that would help to show support or lack of support for such a program. The survey was created on Survey Monkey® and was dispersed via Facebook (personal page, group pages, and shared by friends). By the end of the survey period, which lasted from October 22, 2014 to November 2, 2014, 126 participants had taken the survey, however not all survey participants completed the survey in its entirety.

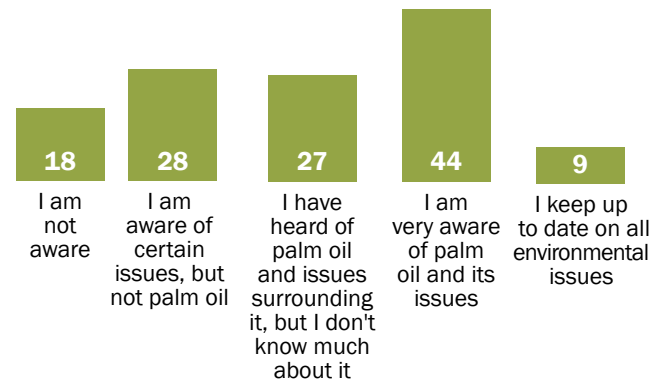
## Results

A total of 126 people participated in the survey, however not all survey takers completed the survey in its entirety. Survey takers were asked to pick the answer that best represented them for the statement: “You are aware of current environmental issues, such as negative effects of the palm oil industry” (Figure 1). Of the 126 participants, 44 answered that they are very aware of palm oil and its issues and nine answered that they keep up to date on all environmental issues. The other 73 participants chose answers that stated that they either were not aware, aware of certain issues but not palm oil, or that they did not know much information about palm oil. Of the 125 participants who answered the questions regarding their participation in the rewards program, 104 participants said they would actively participate in the program in one way or another, with 88 participants stating that they would change certain purchases for the program and/or seek out as many sustainable palm oil products as possible. Ten of the survey participants stated that they would not participate in this program at all and 11 stated that they would participate but not actively.

## Discussion

It was predicted that the idea of offering incentives for shopping for sustainable palm oil products would have positive effects on consumer shopping habits. With 104 of the participants stating that they would actively participate in this program and 88 of the participants being willing to change their shopping habits and seek out sustainable palm oil products, the survey results for this study strongly suggest that participation in a sustainable palm oil shopper rewards program would be high. This would also increase consumer awareness of their purchases in regards to sustainable palm oil. If the Sustainable Palm Oil Shopper Rewards program became a reality, it would help to make a difference through the bottom-up approach of applying pressure to the key players of the palm oil industry (Wilcove and Koh, 2010). This program would provide monetary incentives for sustainable palm oil (due to increased buying from consumers) and monetary punishments for non-sustainable palm oil production (consumers would be more likely to avoid products containing non-sustainable palm oil). However, there is still the issue of a lack of sustainable palm oil products being available for consumers. As of January 2013, the RSPO had only certified 14% of the world’s palm oil supply as sustainable (Tunncliffe and Webber, 2013). This number will hopefully continue to increase through the efforts of organizations such as the RSPO and consumer awareness. More companies need to commit to using certified sustainable palm oil in order to provide more sustainable options to consumers.

**Please pick the answer that best represents you: You are aware of current environmental issues, such as negative effects of the palm oil industry.**



**Figure 1:** Shows survey results regarding awareness of environmental issues, particularly palm oil.

## Conclusion

The solution to the palm oil problem is not simple or one-sided. There are many different approaches to creating sustainable palm oil agriculture. The results of the survey suggest that most people would change their shopping preferences to sustainable palm oil products if incented. Establishing this program could eventually incorporate other consumer initiatives promoting sustainable living. Although these efforts may start out small, they could be what the sustainable palm oil movement needs in order to be considered the norm, especially if combined. By blending conservation campaigns which tug on the heartstrings of consumers, increased education about the palm oil crisis, and increased consumer pressure on the palm oil industry to become sustainable, we can work to save the lives of the wonderful species who call these habitats home. After traveling to Borneo this past summer, I not only saw just how extensive the damage is from the palm oil industry but I also learned that many of the locals truly do care about wildlife and want to do whatever they can to help. However, they can not do it alone and they are left with few options to make a living in order to support their families. Certain attractions in Borneo, such as the Labuk Bay Proboscis Monkey Sanctuary and the Sepilok Orangutan Rehabilitation Centre, are trying to make the best of a bad situation by educating visitors while they are engaged in viewing endangered wildlife. However, in order to save the amazing biodiversity that is threatened with extinction due to palm oil, we all have to work together to form a solution and act as role models in the realm of conservation.

## Acknowledgements

I would like to thank my instructors and classmates involved with Miami University’s Project Dragonfly for helping me through this process, supporting my idea, providing edits, and helping me to step out of my comfort zone. I would also like to thank my coworkers for their support and all zoo professionals for fighting the good fight. 🐾

### Literature Cited

- Alvarado-Quesada, I., L. Hein, and H. Weikard. 2014. Market-based mechanisms for biodiversity conservation: a review of existing schemes and an outline for a global mechanism. *Biodiversity and Conservation* 23(1):1-21.
- Bredahl, D. 2012. Cheyenne Mountain Zoo: Raising Palm Oil Awareness. Retrieved from <http://www.sustainablepalmoil.org/consumers-retailers/consumers/case-studies/cheyenne-mountain-zoo-raising-palm-oil-awareness/>
- Clayton, S., C. Litchfield, and E. Geller. 2013. Psychological science, conservation, and environmental sustainability. *Frontiers in Ecology and the Environment* 11(7):377-382.
- Don't Palm Us Off. 2015. Retrieved from <http://www.zoo.org.au/get-involved/act-for-wildlife/dont-palm-us-off>
- Khor, Y.L. 2011. The oil palm industry bows to NGO campaigns. *Lipid Technol* 23:102-104.
- Laurance, W.F., L.P. Koh, R. Butler, N.S. Sodhi, C.J.A. Bradshaw, J.D. Neidel, H. Consunji, and J.M. Vega. 2010. Improving the performance of the Roundtable on Sustainable Palm Oil for nature conservation. *Conservation Biology* 24(2):377-381.
- Pryor, K. 2009. *Don't Shoot The Dog: The New Art of Teaching and Training*. Ringpress Books Ltd.
- Roundtable on Sustainable Palm Oil. 2014. About us. Retrieved from <http://www.rspo.org/about>
- Ruyschaert, D. and D. Salles. 2014. Towards global voluntary standards: Questioning the effectiveness in attaining conservation goals. *Ecological Economics* 107:438-446.
- Tan, K., K. Lee, A. Mohamed, and S. Bhatia. 2009. Palm oil: addressing issues and towards sustainable development. *Renewable & Sustainable Energy Reviews* 13(2):420-427.
- Tilman, D. 2012. Biodiversity & environmental sustainability amid human domination of global ecosystems. *Daedalus* 141(3):108-120.
- Tunncliffe, H., and D. Webber. 2012. Orangutans, deforestation and the problem of palm oil. *TCE: The Chemical Engineer* 858/859:24-25.
- Wilcove, D.S., and L.P. Koh. 2010. Addressing the threats to biodiversity from oil-palm agriculture. *Biodiversity and Conservation* 19(4):999-1007.

# Membership Has Its Benefits!

Membership with the American Association of Zoo Keepers includes a subscription to the *Animal Keepers' Forum*, member rates for AAZK events and products, access to the Members Only section of [aazk.org](http://aazk.org), plus much more!



Join today at  
**AAZK.ORG**

