

# Visitor Impact Management at Laughing Bird Caye National Park (LBCNP)

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# OVERVIEW

- ⦿ Introduction
  - Background
  - Research Objective and Questions
  - Importance of research
- ⦿ Methods & Results
- ⦿ Discussion
- ⦿ Recommendations
- ⦿ Conclusion

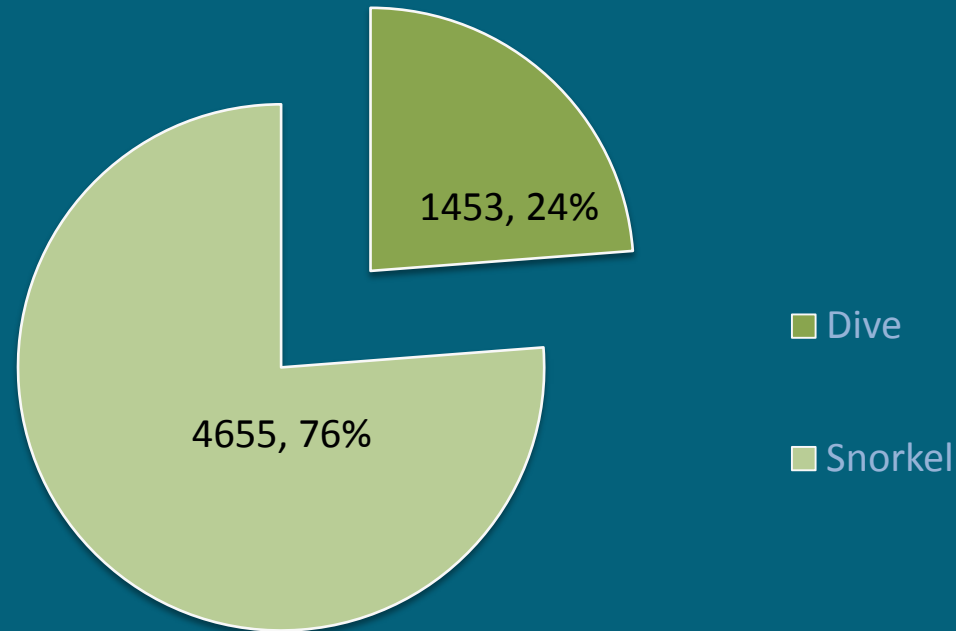
# INTRODUCTION

# Background

- Marine Protected areas (MPA) are used to protect and manage marine resources.
- MPAs support livelihoods and socio-economic development through tourism.
- LBCNP is one of the most visited MPA in Belize.
- Declared premier PA within BBRS (World Heritage Site) in 1996.
- Co-managed by SEA and the Forest Department.



## 2009 Marine recreational activities at LBCNP



- Increased tourist visitation: approx 8,700 annually.
- Protected areas managers need to address current and potential visitor impacts.

# Research Objective:

- To identify visitor impacts in the form of inappropriate snorkelling behaviour at LBCNP and to determine if the current management strategies implemented by SEA and tour guides/operators are likely to be effective in reducing these impacts.

# Research Questions

- 1) How prevalent is inappropriate snorkelling behaviour at LBCNP?
- 1) Does the current level of tour guide briefing adequately provide visitor education to reduce inappropriate snorkelling behaviour at LBCNP?
- 1) How potentially effective are SEA's management strategies in reducing visitor impacts?

# Research Significance

- knowledge of visitor impacts is basic to sustainable tourism.
- MPA managers must address undesirable impacts caused by tourism.
- Importance of visitor behavior, level of education and management from tour guide and SEA vs controlling number of visitors.
- Improve visitor management at LBCNP.
- Implementation of recommendations by key stakeholders.



# METHODS & RESULTS

# Semi-structured interview

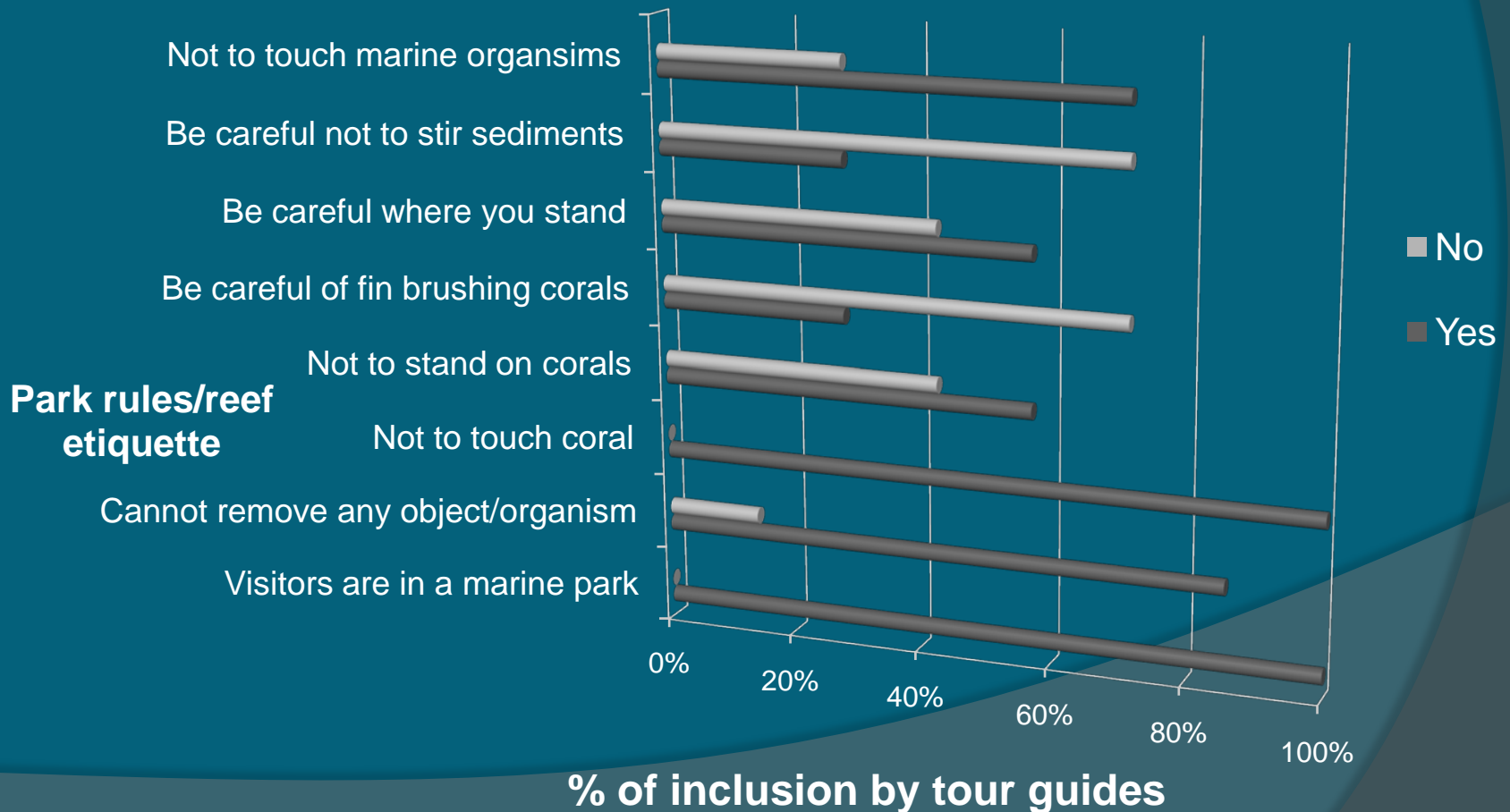
Category	Management strategy
Site management	Provision of mooring facilities Promoting compliance with park regulations Regulating access Length of stay limit Monitoring visitor numbers User fees Regulating types of activities
Site Design	Entry/exit regulations
Information provision/Education & awareness	Palapa Pamphlets/posters Signs

# SEA evaluation

- Most effective: provision of mooring buoys and entry/exit regulations.
- Effective but needs additional development: Utilizing visitation data in tourism management and enforcement of park regulations.
- Needs most improvement: Use of the palapa to provide visitor information and environmental education by park rangers.

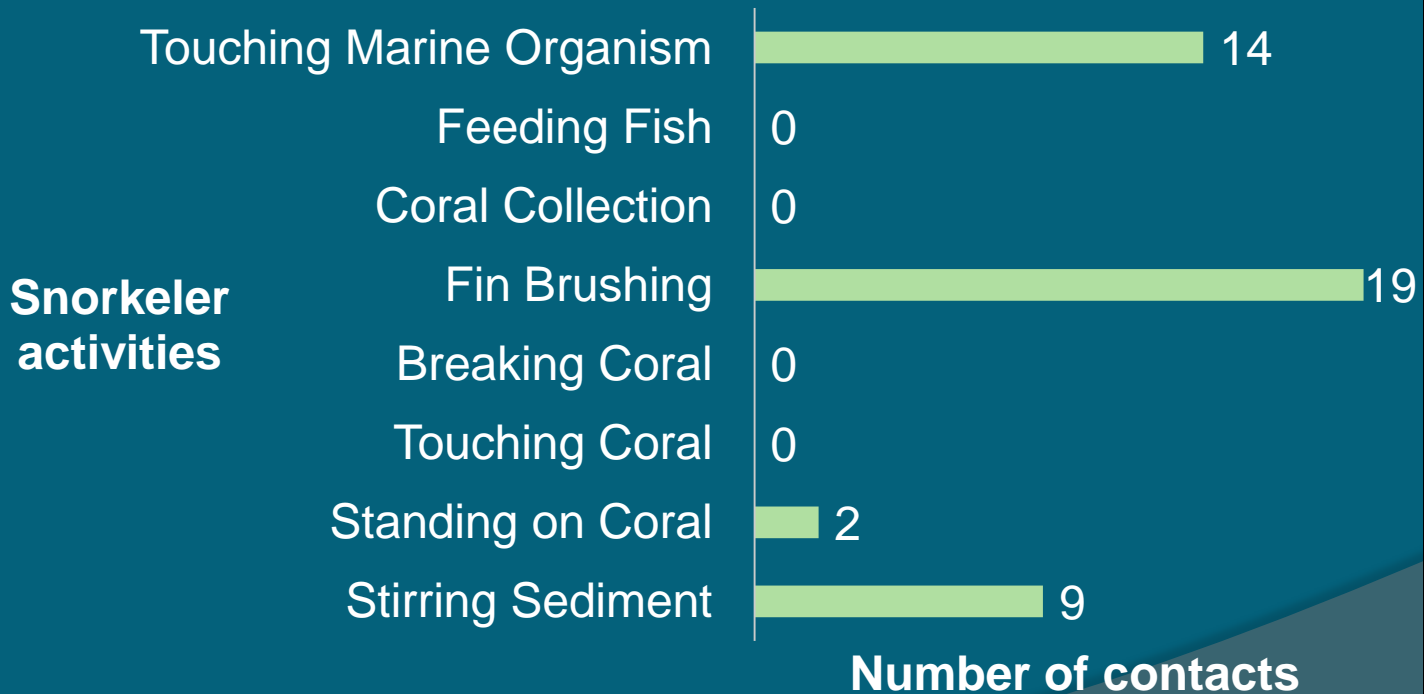
# Evaluation of tour guide briefing

## Inclusion of park rules and reef etiquette in environmental briefings



# Snorkel Survey

## Total number of prohibited snorkeler contacts



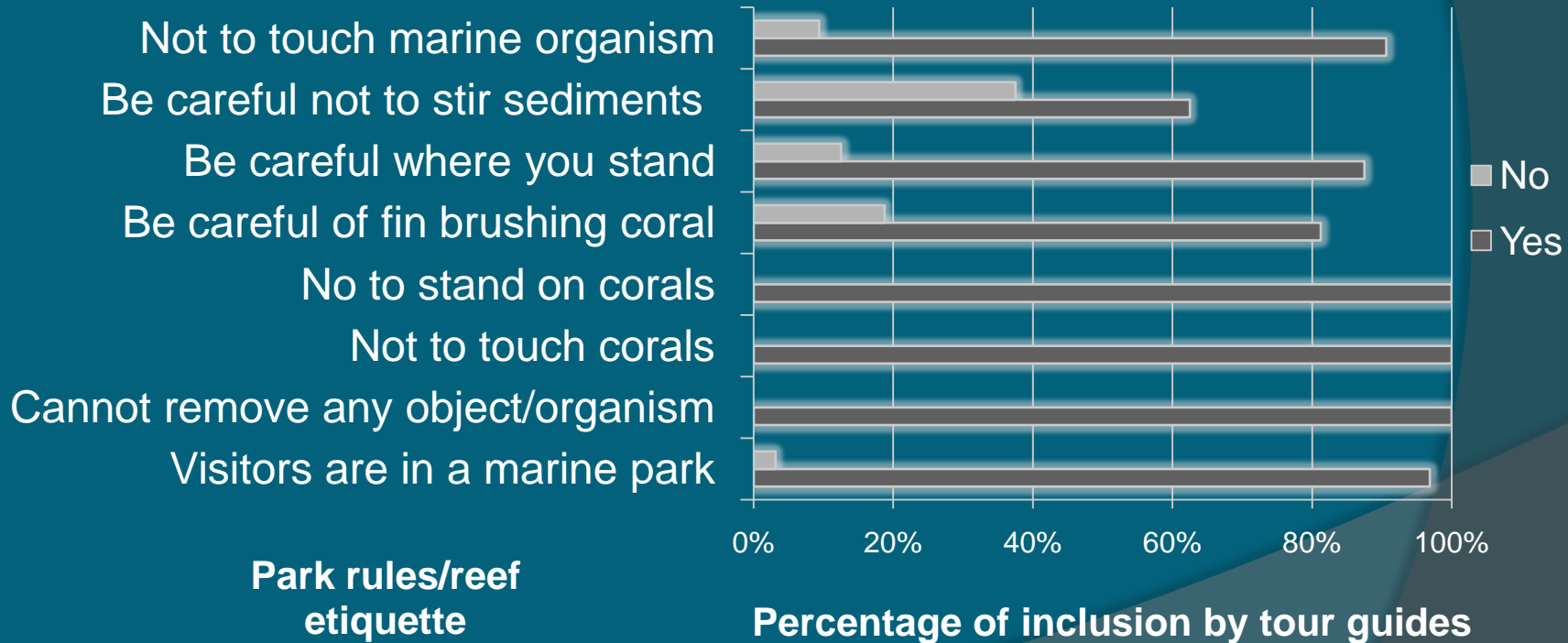
# Tour guide group interview

- 100% considered inappropriate snorkeler behaviour to be a threat to coral reefs at LBCNP.
- 83% agree that the current level of environmental briefings help to reduce the occurrence of inappropriate snorkeler behaviour at LBCNP.
- Some reasons for inappropriate snorkeler behaviour include:
  - Weak swimmers-not honest with guide about swimming skills.
  - Guides not being strict with snorkelers.



# Visitor Questionnaire

Visitor evaluation of inclusion of park rules/reef etiquette in environmental briefings



# Visitor Questionnaire

- Compliance with park rules:
  - 78% were able to follow all.
  - 100% used designated entry/exit route.
  - 56% responded park rules were very easy to follow .
- 44% of visitors rated their snorkelling competence as beginner while 34% were intermediate and only 22% classified themselves as expert.
- 75% responded that the tour guide always followed the rules.

# Visitor Questionnaire

SEA's management strategies:

- 44% visited the palapa to get information about LBCNP.
- 38% rated the level information on importance, history and conservation of LBCNP as good, 44%- no response.
- 100% used entry/exit routes.
- Overall park management was rated as good (83%) by visitors.

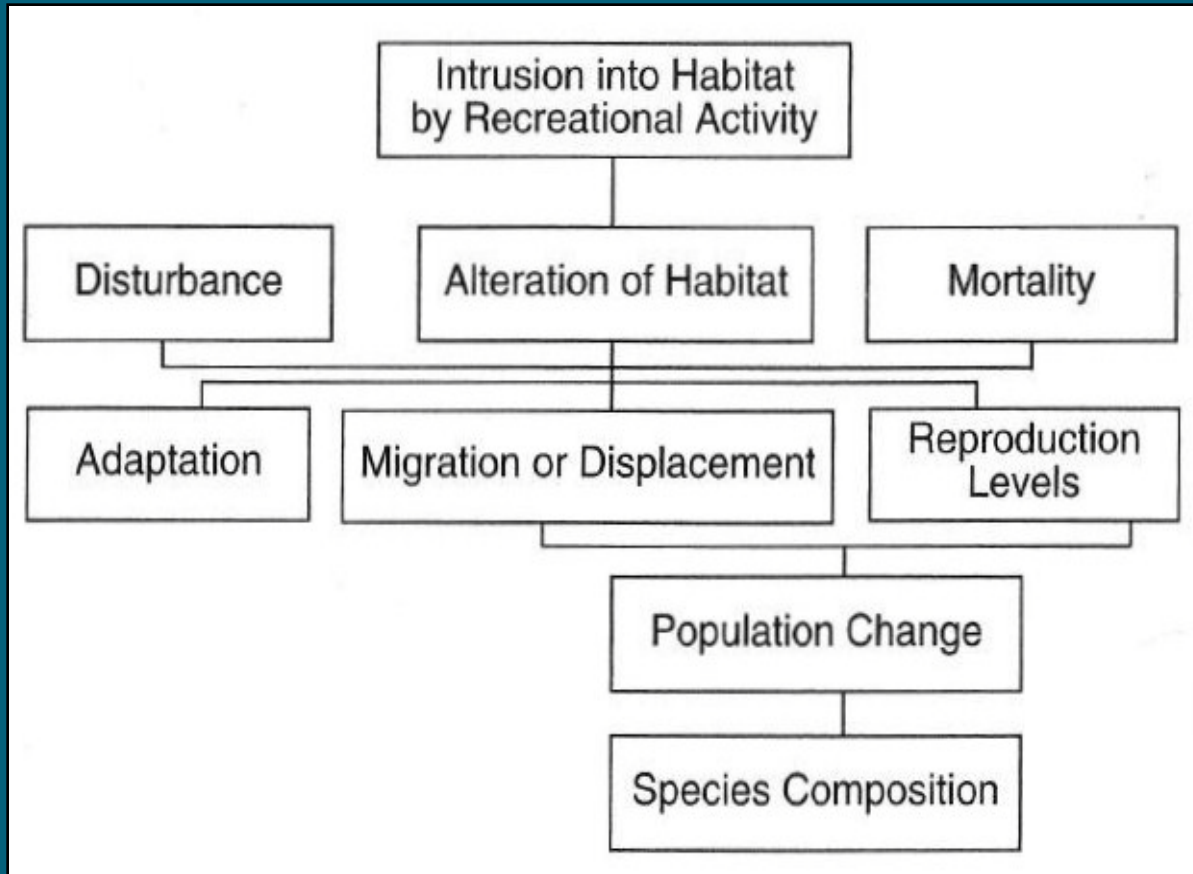
# Visitor Questionnaire

## Ranger evaluation:

- Park rangers' enforcement of park regulations: 56% of visitors -no response; 25% responded 'good' while 16% 'excellent'.
- 91% responded "no" for direct communication with park rangers for assistance, briefing, and information.
- 50% of visitors -no response, while 44% responded 'no' for rangers provision of information about visitor behaviour and proper reef etiquette.

# DISCUSSION

# Marine tourism



Potential ecological impacts resulting from marine tourism (Kuss et al. 1990)





**No chasing or touching marine wildlife** – This can cause great stress to any animal and by touching certain species, you can transmit diseases or remove protective coatings on fish, mammals, invertebrates and other species. Look but never touch and try not to get too close.



**No collecting dead or live marine life** – Removing species that would normally breakdown and be recycled into the sea, leaves other animals without nutrients and elements that they need for growth. Even empty shells on the beach play their part. Take nothing.

Fig.11: Green Fins Guidelines for Environment friendly Diving and Snorkelling (GreenFins. 2009)

# Role of stakeholders in Visitor Management

- Education and environmental awareness.
- Administration skills.
- Interpretation and communication programs at sites should be included as an important part of PA management goals.
- Monitoring and evaluation of interpretation programs and VIM strategies is necessary for effective PA management.

# Recommendations

# SEA Recommendations

- Visitor Impact Management Framework /TOS and Limits of Acceptable Change Study.
- Improved education and awareness of park rules/reef etiquette.
- Ranger duties:
  - Ensure inclusion of park rules and reef etiquette in environmental briefings.
  - Provide information (printed and verbal) about park rules to visitors especially to those not accompanied by tour guides.
- Tour guide training/workshop:
  - Mandatory training for tour guides/operators to LBCNP.
  - Create model environmental briefing card.
  - Restrict use of areas that show signs of degradation.
  - Restrict use of shallow areas as this increase likelihood of damage by visitors.

# Tour guides

- Always provide life jackets/snorkelling vests.
- Improve administration skills (In-water management).
- Educate visitors about the sensitive nature of near-shore reef ecosystems.
- Conduct snorkelling and diving skill refreshers.

# Conclusion

- Tourist visitation to LBCNP does result in visitor impacts.
- Under-investment in visitor management may lead to the degradation in protected areas.
- Visitor Impact Management /TOS is important for effective PA management.
- Role of stakeholders in VIM.
- Importance of visitor behavior, level of education and management from guide and SEA Vs only controlling number of visitors.
- Continued monitoring and evaluation of management strategies.
- Cooperation between tour guides and SEA.



# Acknowledgments

- ◎ SEA
- ◎ Tour guides
- ◎ Tour operators
  - Splash Dive shop
  - Sea horse Dive shop
  - Nite Wind Tours
  - Joy Tours
  - Placencia Dive School
  - Robert's Grove Dive shop
  - Turtle Inn Dive shop

THANK YOU!!!!

Any questions??