

# T.R.E.E.S for Trees - combating deforestation efforts in Belize

A talk for GWCN on behalf of Toucan Ridge Ecology and Education Society

8 December 2022



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- Toucan Ridge Ecology and Education Society
- Pelecanus, Inc
- Sierra Nevada Alliance
- California State University, Long Beach



**The Opposite of Poverty Is Not Wealth.  
The Opposite of Poverty Is Justice.**

~Bryan Stevenson





## Problem in Central America

- In 2010 Belize had 63% of remaining forest cover, Costa Rica 46%, Panama 45%, Honduras 41%, Guatemala 37%, Nicaragua 29%, and El Salvador 21%.
- The bulk of the deforestation was located at the Caribbean slopes of Nicaragua with a minus of 8,574 square kilometers of forest lost in the period from 2001 to 2010. The most significant regrowth of 3,050 km<sup>2</sup> of forest was seen in the coniferous woody vegetation of Honduras
  - - Daniel J. Redo, H. Ricardo Grau, T. Mitchell Aide, and Matthew L. Clark. Asymmetric forest transition driven by the interaction of socioeconomic development and environmental heterogeneity in Central America in: Proc Natl Acad Sci U S A. June 5, 2012; 109(23): 8839–8844.
- The largest contributor to habitat loss is deforestation for ... cattle ranching....As plantations expand, people and cattle are forced into legally-protected areas.
  - <https://storymaps.arcgis.com/stories/b21e1154ae354c9d8629626a5f80ee88>
- COVID - “Everyone was panicking about food security and had lost their employment”



- Wildlife Conservation Society and 25 signatories:
- The Petén Declaration (2017) includes a commitment to five concrete actions to recover the region's forests: 1) supporting local forests and indigenous communities to obtain land management 2) strengthening the conservation of protected areas 3) supporting the prosecution of environmental crimes 4) focusing on illegal livestock as the main driver of deforestation and 5) protecting environmental champions who risk their lives to protect Mesoamerica's largest forests.
- <https://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10332/People-and-Wildlife-Now-Threatened-by-Rapid-Destruction-of-Central-Americas-Forests.aspx>





## In Belize

- In 2010, Belize had 1.75Mha of tree cover, extending over 80% of its land area. In 2021, it lost 9.29kha of tree cover, equivalent to 4.49Mt of CO<sub>2</sub> emissions. ~ <https://globalforestwatch.org>
- There are currently 103 protected areas throughout the country of Belize.





## COMPONENTS OF NET CHANGE IN TREE COVER IN BELIZE



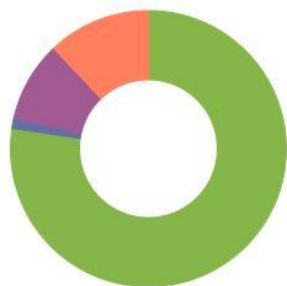
From 2000 to 2020, **Belize** experienced a net change of **-134kha (-8.4%)** in tree cover.

Stable forest  
**1.25Mha**

Gain  
**18.6kha**

Loss  
**153kha**

Disturbed  
**195kha**



Would you like to help us understand how to present this data in more helpful ways? [Click here to fill out a survey](#)

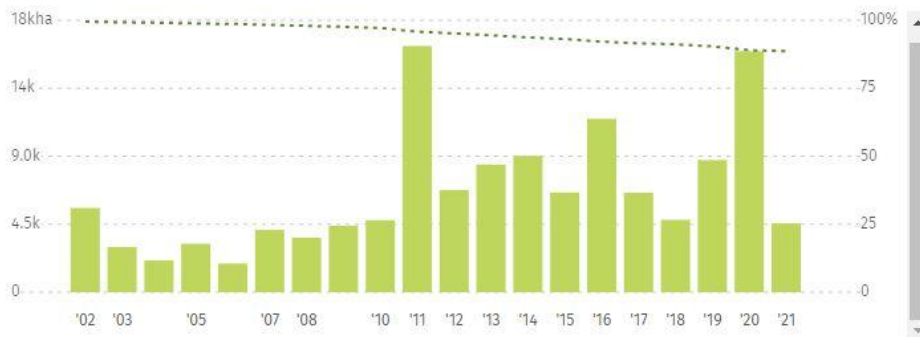
Disturbance represents areas that experienced both loss and gain between 2000 and 2020

GlobalForestWatch.org

## PRIMARY FOREST LOSS IN BELIZE



From **2002 to 2021**, Belize lost **132kha of humid primary forest**, making up **50%** of its total tree cover loss in the same time period. **Total area of humid primary forest in Belize decreased by 11%** in this time period.



The methods behind this data have changed over time. Be cautious comparing old and new data, especially before/after 2015. [Read more here.](#)

2001 primary forest extent remaining | >30% tree canopy



TREE COVER BY TYPE IN  
BELIZE

As of **2000**, **80%** of **Belize** was natural forest cover.

● Natural Forest

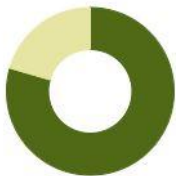
**1.75Mha**

● Plantations

**4ha**

● Non-Forest

**451kha**



2000 tree cover extent | >30% tree canopy

LOCATION OF FOREST IN  
BELIZE

In **Belize** as of **2010**, the top **2** regions represent **50%** of all tree cover. **Cayo** had the most tree cover at **477kha** compared to an average of **292kha**.

1	Cayo	477kha
2	Toledo	400kha
3	Orange Walk	338kha
4	Belize	235kha
5	Stann Creek	196kha

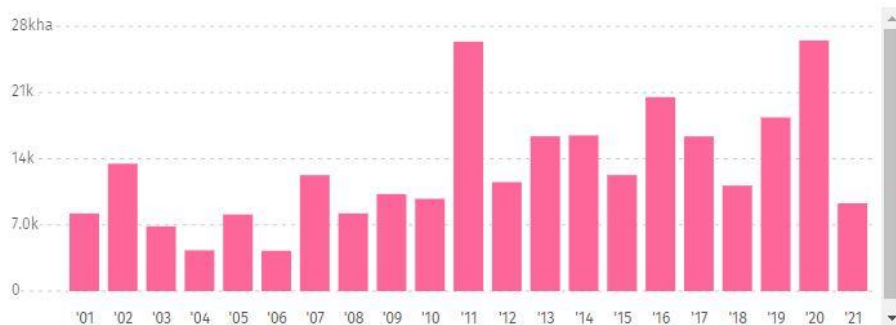


2010 tree cover extent | >30% tree canopy

## TREE COVER LOSS IN BELIZE



From **2001** to **2021**, **Belize** lost **271kha** of tree cover, equivalent to a **15%** decrease in tree cover since **2000**, and **128Mt** of CO<sub>2</sub>e emissions.



The methods behind this data have changed over time. Be cautious comparing old and new data, especially before/after 2015. [Read more here.](#)

2000 tree cover extent | >30% tree canopy | these estimates do not take tree cover gain into account

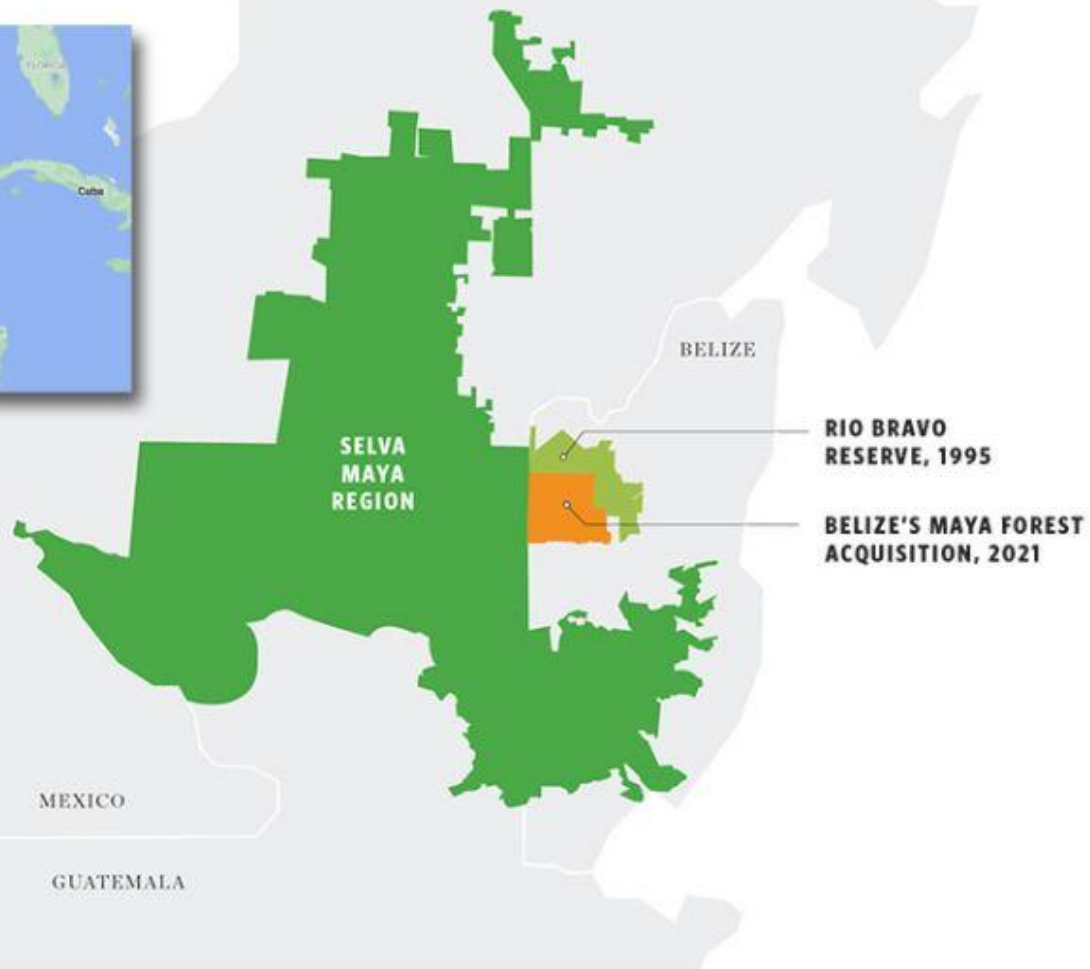




Belize has launched several initiatives in recent years to protect its natural resources. In 2018, oil drilling off its coast was banned to safeguard marine environments and the lucrative diving industry. Nearly 40% of the country's land mass is also under some form of protection.

- <https://www.theguardian.com/environment/2021/apr/22/teeming-with-biodiversity-activists-buy-up-belize-rainforest-to-stop-logging-in-perpetuity-aoe>





Map courtesy of The Nature Conservancy.





Map courtesy of The Nature Conservancy.

## Selva Maya

- In 2021, a consortium of more than a dozen conservation organizations purchased a critical piece of land: the Belize Maya Forest, a 96,000-hectare (236,000-acre) linchpin in Central America's pristine Selva Maya. This purchase very likely saved this former forestry concession from being cleared for industrial-scale agriculture.
- The area was owned by the Forestland Group, a US company that had permits for sustainable logging. When it came up for sale, the Nature Conservancy and others, including Rainforest Trust, World Land Trust, University of Belize Environmental Research Institute and Wildlife Conservation Society
- the Maya Forest corridor, which connects Belize's Maya mountains and the northern Maya lowland forests shared by Belize, Mexico and Guatemala, has faced high rates of deforestation, driven by land clearances for industrial-scale agriculture.
  - <https://globalconservation.org/projects/greater-belize-maya-forest/>
- The Mayan Forest is the second largest intact tropical rainforest in the Americas after the Amazon. It is home to Mayan communities who still practice traditional agriculture, as well as ancient Maya cities and landmarks including the Tikal Plaza.
  - <https://storymaps.arcgis.com/stories/b21e1154ae354c9d8629626a5f80ee88>





**TREES**  
TOUCAN RIDGE ECOLOGY  
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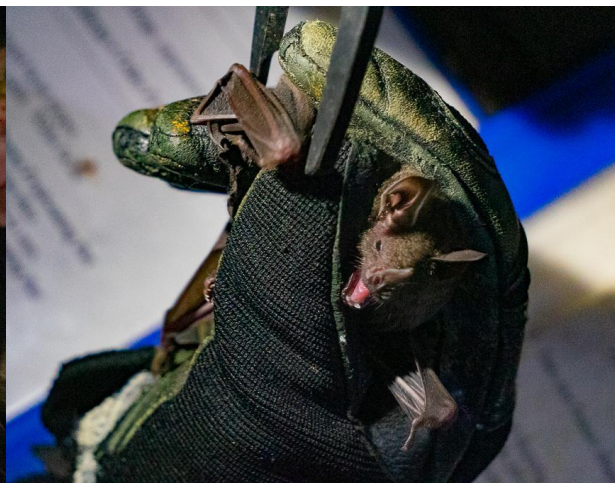
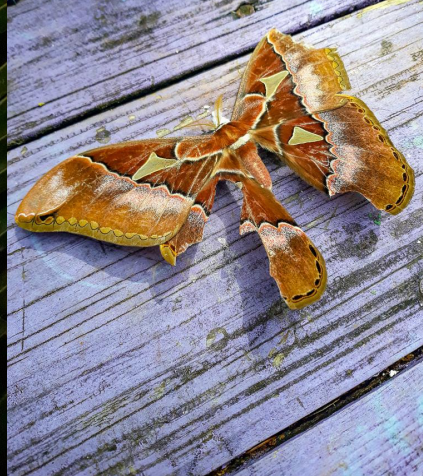


# Mat and Vanessa



**TREES**  
TOUCAN RIDGE ECOLOGY  
& EDUCATION SOCIETY





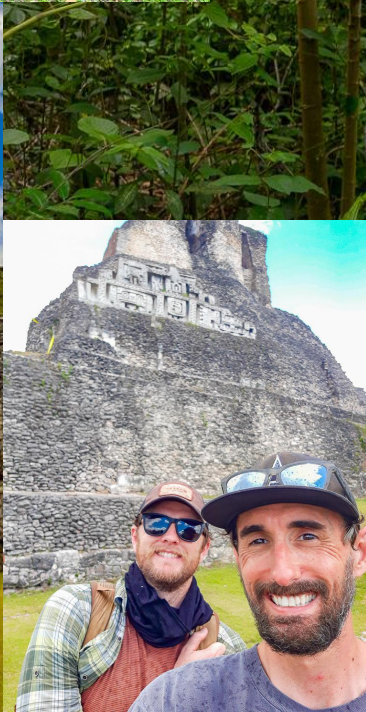






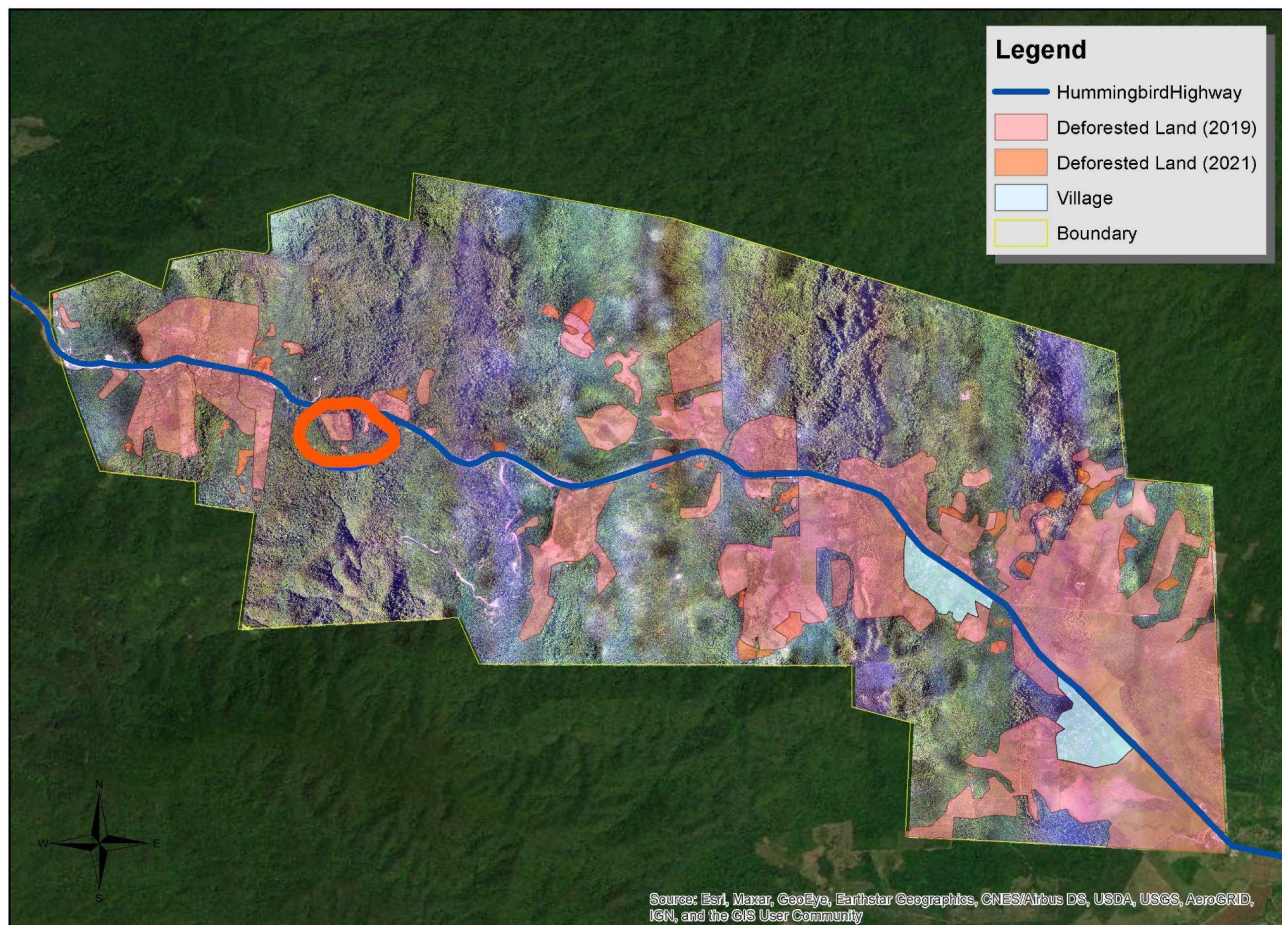








## 2021 Deforested Land surrounding T.R.E.E.S















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## Individual Membership

(\$25+/year)

- Members-only newsletters
- Access to Annual General Meeting (AGM)
- Discounts on T.R.E.E.S. workshops
- Exclusive discounts on T.R.E.E.S online shop
- 1 tree planted on your behalf



## Family Membership

(\$200+/year)

- All of the above
- +
- Discount on T.R.E.E.S. accommodation
- \$50 gift card to T.R.E.E.S. online shop
- 5 trees planted on your behalf

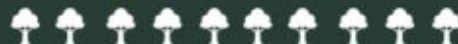


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## Corporate Membership

\*Contact us for price & full list of items\*

- 10 trees planted on your behalf



By becoming a member, you help us continue our work in ecological education and conservation.



Toucan Ridge  
Ecology and Education Society

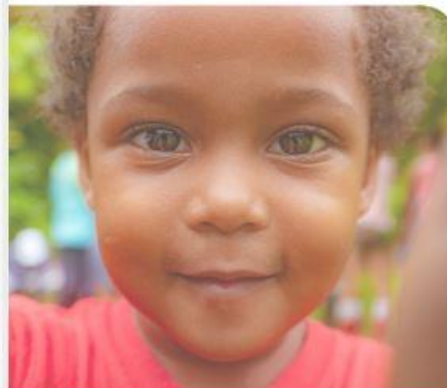


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2022



**Thank you!**

**Please visit:**

- [Treesociety.org](https://treesociety.org)
- [Ecorana.ca](https://ecorana.ca)

**Or, email me at: [taylor@pelecanus.org](mailto:taylor@pelecanus.org)**

**Other sites to visit:**

- [Pelecanus.org](https://pelecanus.org)
- [SierraNevadaAlliance.org](https://SierraNevadaAlliance.org)

