

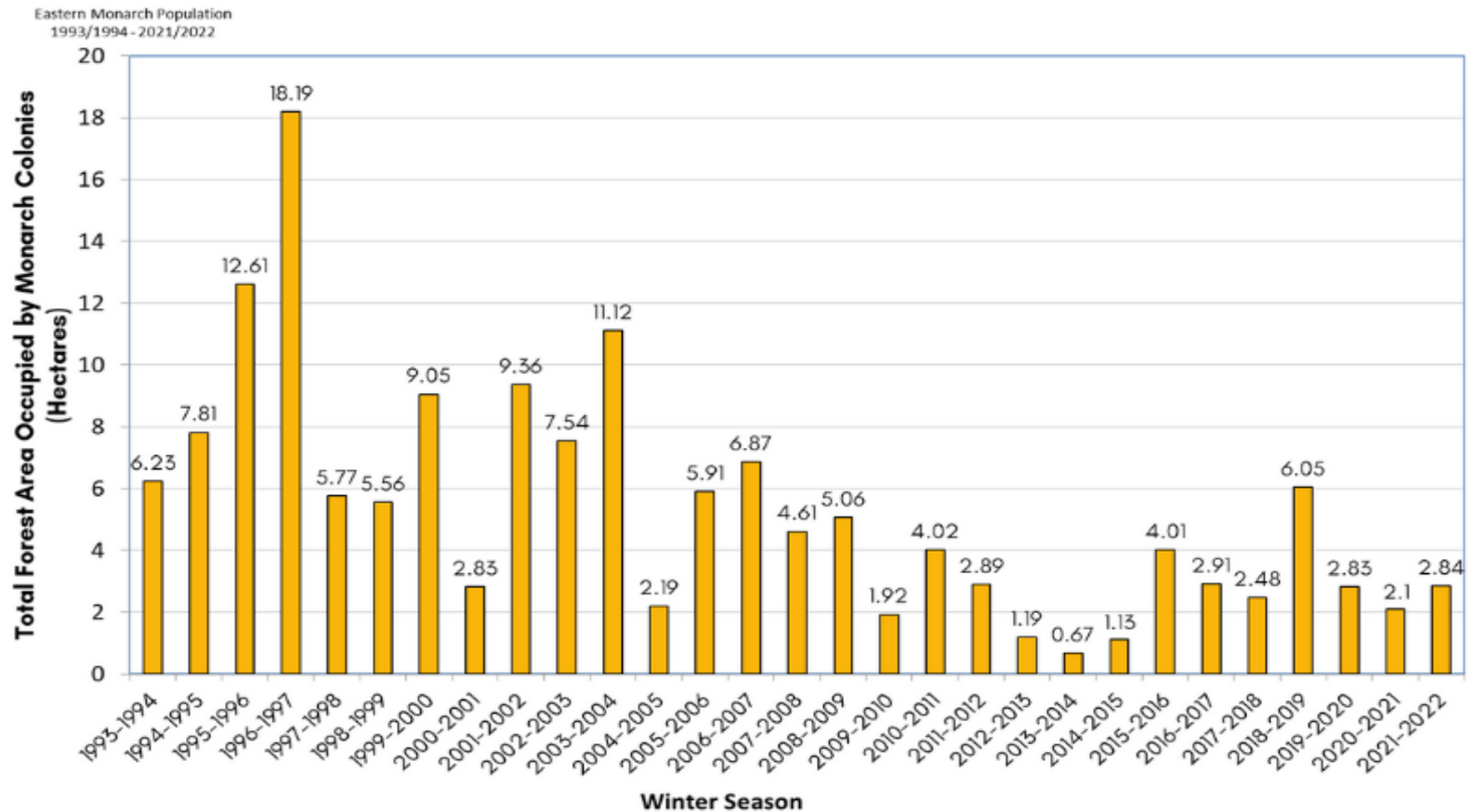






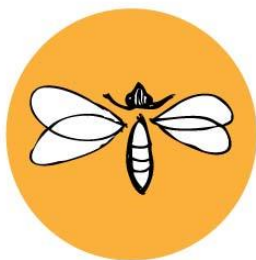


Total Area Occupied by Monarchs at Overwintering Sites in Mexico 1993/1994 - 2021/2022



Scientists estimate that a minimum of 6 hectares of overwintering monarchs is needed to sustain the eastern population (Semmens et al., 2016).

Data from 1994-2003 were collected by personnel of the Monarch Butterfly Biosphere Reserve (MBBR) of the National Commission of Protected Natural Areas (CONANP) in Mexico. Data from 2004-2022 were collected by the WWF-Telcel Alliance, in coordination with the Directorate of the MBBR. 2000-2001 number as reported by Garcia-Serrano et al. in 2004.



OPERATION POLLINATION

7th Area of Focus framework

Rotary District 5100
Milwaukie, Oregon

The Story

Pollinators are essential for life on Earth
AND it is critically important to protect them,

BUT their numbers have declined by more than
40% in the past 50 years,

THEREFORE the  *framework*
was developed to *help us protect the planet*
for ourselves, our children and their children.

Agenda

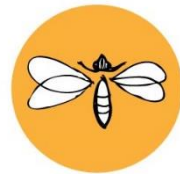
Part One: What is  OPERATION POLLINATION ?

Part Two: A brief history of the framework.

Part Three: How to engage in  OPERATION POLLINATION .

Part One

What is



**OPERATION
POLLINATION**



OPERATION
POLLINATION

...is an inclusive framework designed to help Rotary (*or other organizations*) recruit a diverse array of partners who want to engage in pollinator education and pollinator habitat restoration activities.



**OPERATION
POLLINATION**

Two goals:

- 1) Pollinator Education**
- 2) Pollinator Habitat Restoration.**



“The real voyage of discovery consists not in seeking new landscapes but in having new eyes.”

--MARCEL PROUST

...but with those “new eyes” no one wants to see this scene.
Much of the food we eat is thanks to the work of pollinators.



FREE Ecosystem Services

**Pollinators are responsible
for the reproductive success
of more than 85% of the
world's plants.**

FREE Ecosystem Services

Pollinators are responsible for “pollinating” more than 85% of the world’s plants.

**But...since the 1970’s,
pollinators have declined by
more than 40% worldwide.**

Reference: *Worldwide Decline of the Entomofauna:
A Review of Its Drivers*; Biological Conservation (2019)

Meet the Pollinators...

Bees



Wasps



Flies



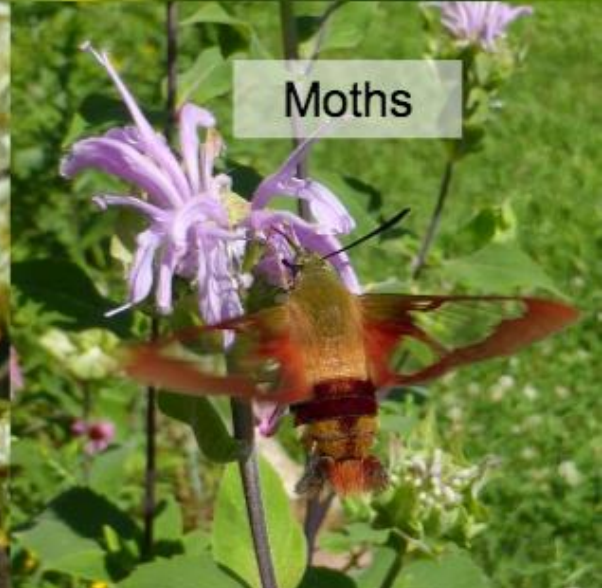
Beetles



Butterflies



Moths

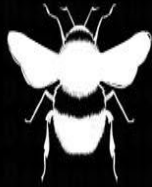


What type of pollinator is this?



from *The Wall Street Journal*, August 2021





Without pollinators, the humans and all of the terrestrial ecosystems would cease to exist.

Part Two

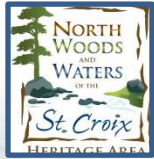


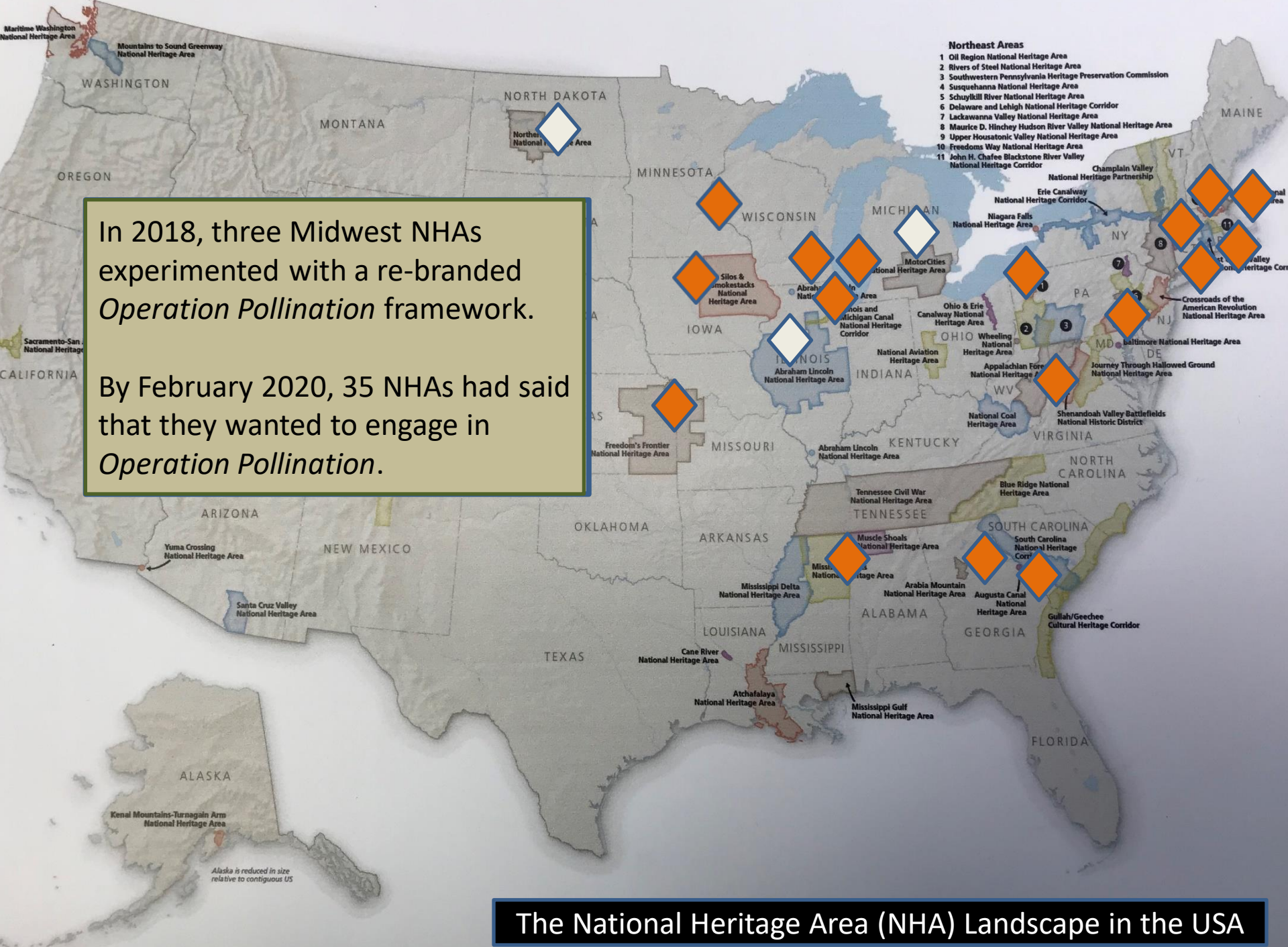
OPERATION
POLLINATION

A very brief history

The **St. Croix Valley Pollinator Partnership** (Aug 2015)

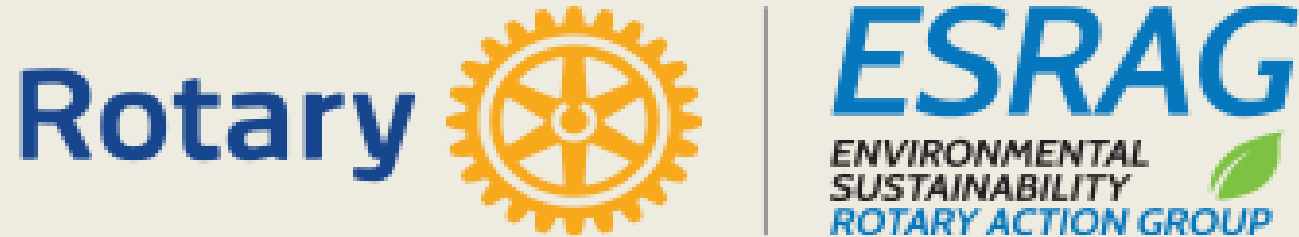
Federal land managers invited ALL organizations to join the cause.





The National Heritage Area (NHA) Landscape in the USA

August 2020

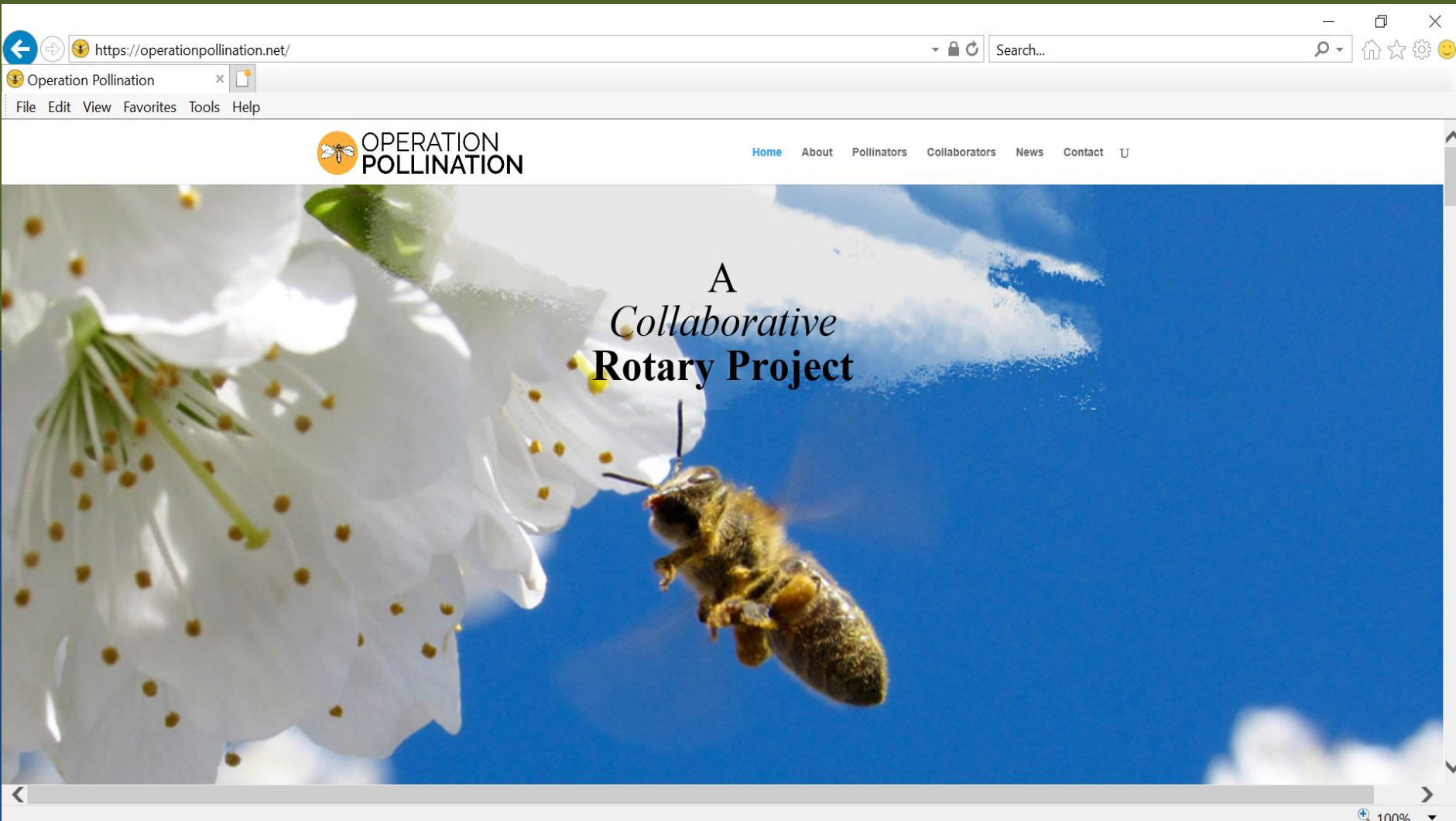


Central North American Chapter



OPERATION
POLLINATION

https://operationpollination.net



Rotary

District 6450



In February 2021, 6450 was the *first district* to sign a districtwide Pollinator Resolution.



62 ROTARY CLUBS; 2000+ ROTARIANS

INVITATION

District 6360, Michigan

Today,
Rotary
leaders are
signing
on to



Rotary Club of Luton Someries,
England



Carnegie
Dunfermline,
Scotland



Rotary Club of Morelia, Mexico



District 6250, WI



District 5960,
MN/WI

*PLEASE consider signing a **Pollinator Resolution** and **Pollinator Pledge**.*

The *first* Club in South Asia to sign a ***Pollinator Resolution*** and ***Pollinator Pledge***



Rotary Club Nilgiris West
District 3203
Tamilnadu India



OPERATION POLLINATION

7/8/22





OPERATION
POLLINATION

9/21/22

Rotary Districts with signed *Operation Pollination Partnerships*

March 7, 2023
Update

District 6450 (Birthplace of Rotary) Chicago, Illinois

District 6440 (the Home District), northeast Illinois

District 5970 (northeast Iowa)

District 5960 (Minnesota/Wisconsin)

District 7910 (central Massachusetts)

District 5710 (eastern Kansas)

District 6250 (Wisconsin)

District 6360 (southwest Michigan)

District 6000 (Iowa)

District 1180 (western England/northern Wales)

District 7620 (Washington DC and central Maryland)

District 7890 (sw Massachusetts and nw Connecticut)

District 7930 (northeast MA)

District 3232 (southeast India)

District 6650 (east central Ohio)

District 6380 (southeast Michigan/southwest Ontario)

District 6600 (northern Ohio)

District 5950 (south central Minnesota)

District 6270 (southeast Wisconsin)

District 6420 (nw Illinois)

District 6080 (sw and central Missouri)

District 6060 (eastern Missouri)

Districts 4130 (Mexico)

District 4140 (Mexico)

District 4170 (Mexico)

District 5400 (Idaho and Eastern Oregon)

District 6670 (sw Ohio)

District 6630 (ne Ohio)

District 6690 (se Ohio)

District 7010 (Ontario)

District 5030 (w WA)

District 5910 (Texas)

District 5230 (Fresno to Monterrey, CA)

District 5890 (Texas)

District (east Africa) PENDING

District 6780 (east Tennessee) PENDING

District = Rotary district with a signed Operation Pollination Resolution

District = partnership between a Rotary District and overlapping National Heritage Area.

District 5060 (central WA/s British Columbia)

District 5080 (BC, ID, WA)

District 5055 (Ontario, Manitoba, Saskatchewan)

District 5100 (OR)

District 5010 (Alaska)

District 5110 (OR, n CA)

District 5040 (BC)

District 5060 (BC/WA)

District 5580 (n MN, ND, SD, ON) PENDING

District 6780 (e TN) PENDING

District 6860 (n AL) PENDING

District 6880 (s AL) PENDING

District 6290 (MI) PENDING

District 6310 (MI)PENDING

District 6540 (n IN) PENDING

District = Rotary district with a signed Operation Pollination Resolution

Part Three

How to engage in



OPERATION
POLLINATION



<https://esrag.org/pollinators>



Join

Rotary



ESRAG
ENVIRONMENTAL
SUSTAINABILITY
ROTARY ACTION GROUP

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Take Action ▾

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News & Events ▾



Two Goals

- 1) Education
- 2) Habitat Restoration

WHAT IS IT?

Pollinator Protection

The ESRAG Pollinator Task Force educates and supports action on four simple ways to protect pollinators:



Pollinator Resolution

The

*undersigned recognize the critical importance of pollinator habitat both restored and maintained on public and private lands, particularly found within our geographic area. Through collaboration and outreach resulting from this **Pollinator Resolution**, an interconnected mosaic of pollinator habitat will be developed to help restore and maintain populations of pollinator species throughout this region.*

- WHEREAS, pollinators include butterflies, bees, some birds, bats, and other insects that play a crucial role in flowering plant reproduction, and
- WHEREAS, three-fourths of the world's flowering plants and 35% of the world's food crops depend on pollination to
- WHEREAS, given the breadth, severity, and persistence of pollinator losses it is critical to expand efforts to reverse these losses and restore populations to
- WHEREAS, an **Operation Pollination** goal is to increase pollinator habitat throughout the world, and
- WHEREAS, the leadership and impact of Rotary to improve communities is a hallmark of Rotary
- WHEREAS, the **Environmental Sustainability Rotary Group (ESRAG)** supports the goals of **Operation**
- WHEREAS, working together, we can increase capacity to reach out to individuals throughout our region with information and education about pollinators and

THEREFORE, we declare that it is our goal to support

**The signing of a
Pollinator Resolution
is part of the
education goal.**

**Just a simple start.
A recognition of the
issue.**

Pollinator Activity Pledge

After completing the [Pollinator Resolution](#), this form records that your organization is taking action to support pollinators. ESRA, the Environmental Sustainability Rotary Action Group, will not share your contact information without your approval. ([Privacy Policy](#)) We will share your organization name, type, and activity description to educate and inspire other groups. (v. Aug 2022)

For more information contact Communications@esrag.org.

[Sign in to Google](#) to save your progress. [Learn more](#)

* Required

Email *

Your email

Main contact name

Your answer

**The signing of a
Pollinator Pledge
is a commitment to
the habitat
restoration goal.**

**It is based solely on
the Four-Way Test.**





Restoring the Nature of the Deciduous Forest
An innovative environmental program
that promotes a healthy ecosystem
and restores the habitat
for the monarch butterfly.

Presented & Displayed by the St. John's Rotary Club
Sponsored by the St. John's Rotary Club

Rotary Club of St. John's



Natural
Partners



MONARCH
SISTER
SCHOOLS
PROGRAM



A sample of  OPERATION POLLINATION inspired projects.

The end goal:

Pollinators = **Food Security** = **National Security**



Credit: Whole Foods

The Story

Pollinators are essential for life on Earth
AND it is critically important to protect them,

BUT their numbers have declined by more
than 40% in the past 50 years,

THEREFORE the  OPERATION
POLLINATION *framework was
developed to help us protect the planet
for ourselves, our children and their children.*

Might you be able to help?

The Operation Pollination Ambassadors

There are
now 85
of us!



Mina Venkataraman
District 3203
Nilgiris West Club, India
ESRAG
Projects Director



Tina Hall
PDG District 6220
NE WI/Upper Peninsula, MI
now with D5970
Northeast Iowa



Brian Yopp
MotorCities
National Heritage
Area,
Southeast Michigan



Marlene Gargulak
PDG District 5960
NW WI/SE MN
Rice Lake Club, WI
1st DG to adopt OP

Judy Freund
PDG District 5960
NW WI/SE MN
Hudson Club, WI
ESRAG member



Manon Crowley
Environmental Chair
District 6450, Chicago
"Birthplace of Rotary"
Naperville Club, IL



George Gormley
District 6360
Southwest Michigan
Past President
Harbor Country Club



Eli Arias
Distrito 4140
Rotary Club of Morelia,
Mexico



Elayne Bozick
District 6560
Eastern Ohio
DGND (DG '24-'25)
Youngstown Club, OH



Holly Zane
Wyandot, Bear Clan
Freedom's Frontier
National Heritage
Area, KS/MO



Felix Kariuki
Lavington EcoClub
Nairobi, Kenya
(D9212)



ONLY YOU

**ONLY YOU
CAN HELP PROTECT
POLLINATORS**

THANK YOU

**Rotary Club of
Milwaukie, OR**

**for your
consideration
in supporting**



**OPERATION
POLLINATION**

“We shall not cease from exploration, and the end of all our exploring will be to arrive where we started and know the place for the first time.”

--T.S. ELIOT



THANK YOU

Chris_Stein@nps.gov
(402) 881-1387

<https://esrag.org/pollinators>



**OPERATION
POLLINATION**



That's an
old photo



QUESTIONS?





Striped Tiger
Danaus genutia

**Found in India and
other south Asia
countries.**



Monarch
Danaus plexippus

**Found in
North America.**