

# Center for Natural Lands Management

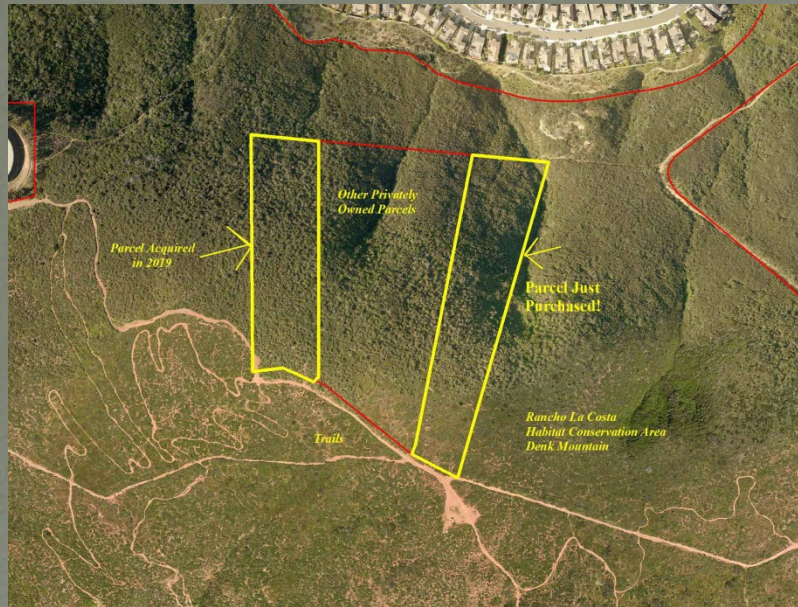
## City of Carlsbad 2020 Annual Stewardship Summary



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March 9, 2021

*CNLM is a 501(c)3 nonprofit corporation created to protect and preserve biological resources through the long-term stewardship of mitigation and conservation lands.*

# Property Acquisitions/Additions to the RLC Preserve



- Luchia 39 acres
- Denk Mtn-Campbell 6 acres
- USFWS Section 6/WCB Grant Funding Purchase
- Endowment from City of Carlsbad for Luchia
- Support from North County Advocates
- Fund Raising Effort has raised ~\$25,000 to date for long-term Stewardship for Denk Mountain-Campbell Parcels



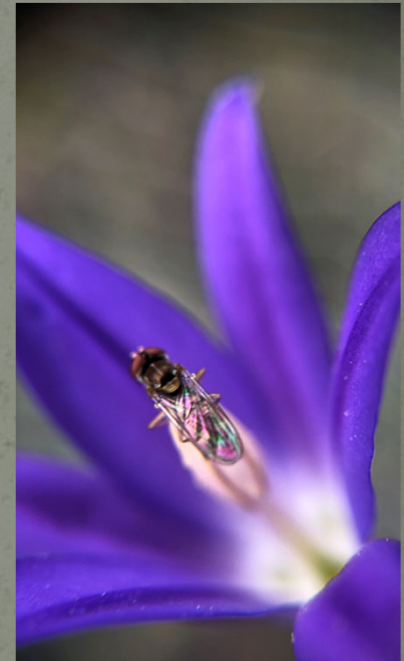
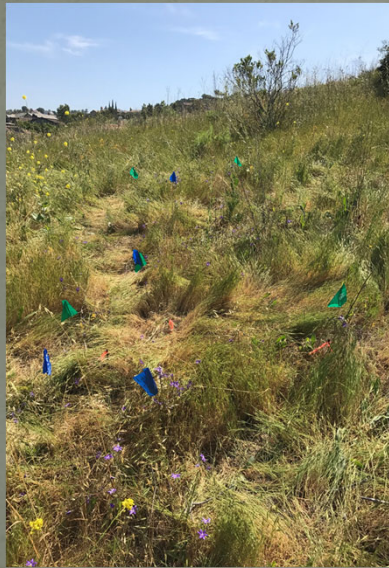
# Cliff Spurge Planting at Kelly Ranch



- Only 20 individuals originally on Preserve, all in one small location
- Extant occurrence could easily be lost to some event
- Propagated 150 Cliff Spurge in 2019 using cuttings to increase population size
- Planted 113 individuals in December 2019
- As of winter 2020, 112 remain
- In January of 2021 33 additional individuals were planted



# Thread-leaved Brodiaea Pollinator Study



# Thread-leaved Brodiaea Pollinator Study

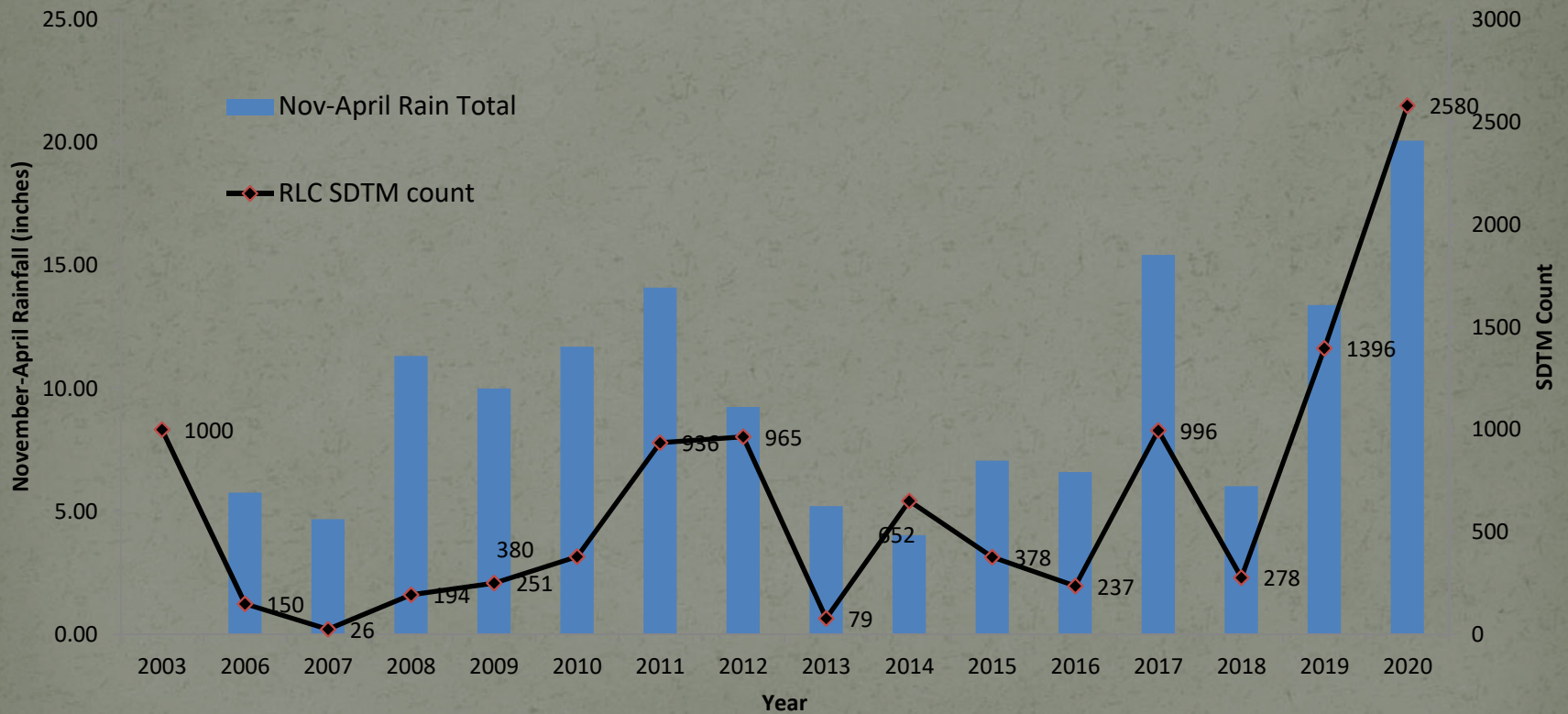
Pollinators	Rancho La Costa	Buena Vista	Calavera Hills	Total
Calligrapher Fly ( <i>Toxomerus marginatus</i> )	8	20	16	44
Soft-winged Flower Beetle ( <i>Dasytinae</i> sp.)	5	2	13	20
Metallic Sweat Bee ( <i>Lasioglossum microlepidoides</i> )	0	5	0	5
Sweat Bee ( <i>Halictus</i> sp.)	1	0	2	3
<b>Total</b>	<b>14</b>	<b>27</b>	<b>31</b>	<b>71</b>

Preserve	Total Seeds	Individuals TLB w/Seeds	# Flowers w/seeds
RLC	62	13	24
Calavera	0	0	0
Buena Vista	10	3	3
<b>Total</b>	<b>72</b>	<b>16</b>	<b>27</b>



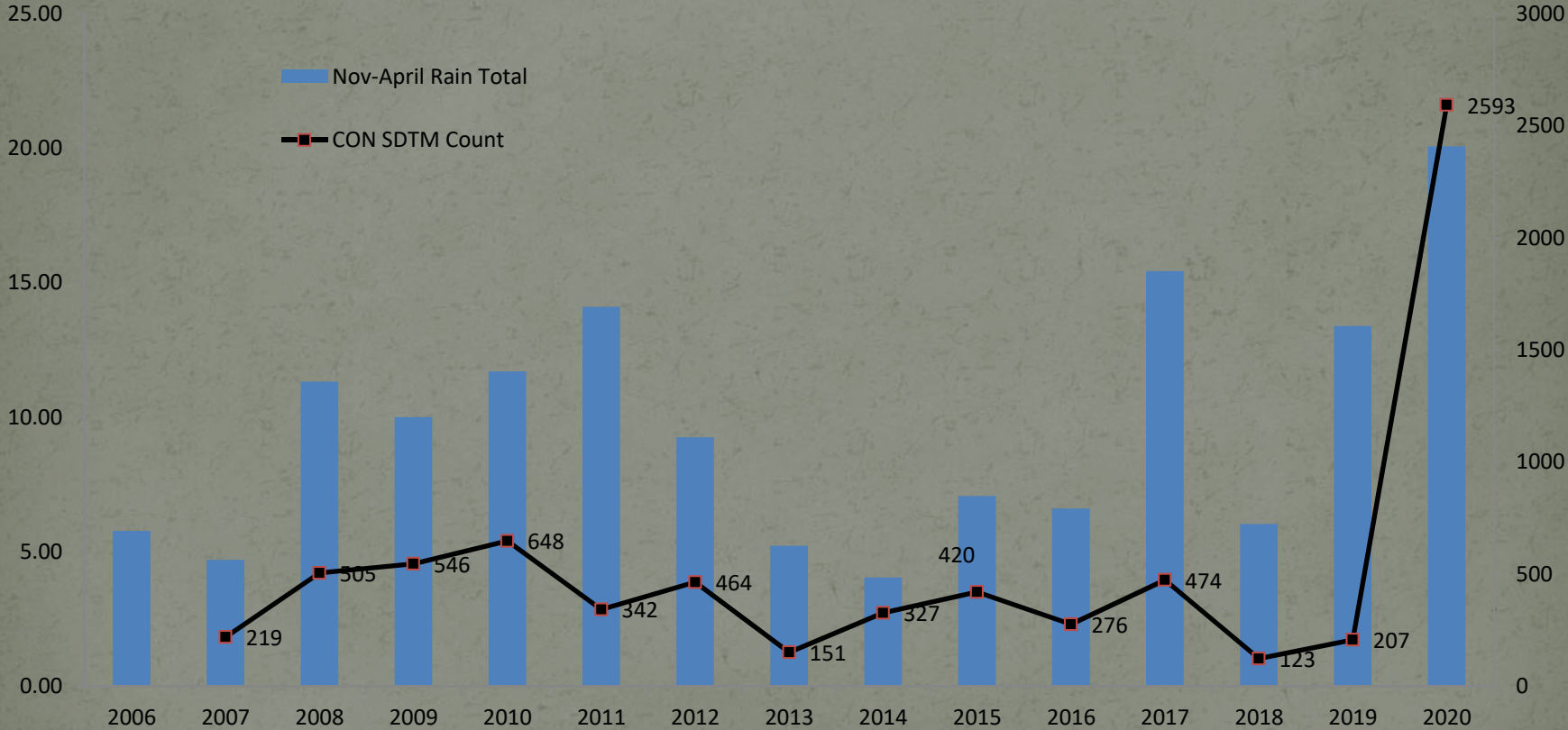
# Record San Diego Thornmint at RLC

## Rainfall and Counts



# Record San Diego Thornmint at Carlsbad Oaks

## Rainfall and Counts





# San Diego Thormint Out-seeding Results

Location	# of Seed Distributed	Results 2019	Percent Flowering	Results 2020
Rancho La Costa Uphill	1000	55 individuals	5.5	195 individuals
Rancho La Costa (2)	1000	103 individuals	10.3	21 individuals
Carlsbad Oaks North Uphill	250	107 individuals	42.8	776 individuals
Carlsbad Oaks North EFTS	250	26 individuals	10.4	42 individuals



# Mountain Lion at Rancho La Costa!





# Mountain Lion Observation Points

