

## Home Landscaping in Climate Change – Bee Audacious Conference Marin Art and Garden Center - FEB 29<sup>th</sup>, 2019

### Technical Snafus

All recordings of speaker talks cut off at 12.5 minutes

Opening Speaker – CNPS Director Dan Glussencamp – video not recorded

### The Soil Sponge – Diana Donlon, Director of Soil Centric

50% of all trees cut since civilization began – globally

Pedogenesis – process of making soil

- “Effective rainfall” rain into soil – not runoff concrete
- Water follows carbon- if you build it- it will come!
- Decomposition in the wetland –

Rotting down biomass by fungi to turn that fuel into soil carbon

An increase in organic matter of 1 acre of land = can hold 27,000 gallons of additional water

### Biodiversity and Climate Change: The Missing Links - Paul da Silva Professor at COM

Insects are the links that join different parts of communities

Must go beyond pollinators

Loss 30% of the birds-need planting diversity in habitat to support wildlife

in landscaping. It must be in proportion Gingo, but not all or a lot

Which native plants host most insects?

200 species of BAPI

20 species of caterpillars – coast live oak on 1 tree. 409 species on Toyon

30% of non-natives by volume does not harm landscape

Decomposition helps tremendously

“Intermediate Disturbance Hypothesis” - All ecosystems have evolved with a disturbance.

What is in terms of fire? Can we replace that with pruning?

Emphasized – creating a balanced system

### The Native Landscape-2013- co author Greg Rubin and Lucy Warren- S. Cal

Designed 750 Landscapes w/ Natives

San Diego 9 in/rainfall/ year -Off Shore winds dry it out

-most native plants are using varieties from SF fog bank (all named after N. Cal places)

Type conversion 1970-2001 to annual grasses (2x fires) no chaparral

Fuel reduction- flashy fuels of annual grasses is the main landscape and perpetuates

Mistaken to believe too many fires – no chaparral

1919- current 97% human caused ignition (Arson, powerlines, smoking, sparked landscape equipment, trash burning)

### Low Input – High Impact Patricia Algara – With Honey in Heart

Landscape Architect –

- Over 1 million insects – taxa (only 20% we know of)

- 20,000 bees, 400,000 species of beetles these are our Vital Ecosystem Services
- Habitat loss, urbanization, pollution, pathogens
- Interest – tracking – fall in love with insects

Pollinator Boulevard – Dolares and Market St meridian strip– San Francisco

-Used both native and non-native species-

Volunteer led – green waste for mulch came from the city and Whole Foods – donated material

Found 11 species of bees – tracked what flowers they go to – 1 st year

Soil and rainwater capture – make sure to plant large plants in the center

Watershed Approach to Landscaping – Keith Bancroft MMWD

Maringwater.org /WAL

110 Waterwise plants – Guidebook on low maintenance

He emphasizes design of your home garden

-retain water on your property, build healthy soil, avoid irrigation (25% of irrigation over water)

Community College course and an Eco- Friendly Garden Tour in May – Marin – Sonoma

A Less Toxic Approach to Gardening Suzanne Bontempo- IPM Educator

– Our Water Our World

Build Healthy Soil – Synthetic Fertilizer are high in Salts

Mulch – saves H2O- Use Organic fertilizers

Compost corrects every situation = bacteria and beneficial fungi

Nutrient transport systems – use cover crops, leave fava to decompose, etc

Defensible Space / Veg Mngmt / Home Hardening – Todd Lando ED of Firesafe Marin

First 1919 – major fires destroyed 100s of homes

Tamalpais Forest Fire District – 1<sup>st</sup> Self Imposed Tax for Wildfire in the Country for Wildlands

Feb 28th 2019 - San Bruno wildland fire – first in the winter

Most homes ignite from embers – demo of ember resistant and ignition resistant material

home during hours of fire storm- only lawn chairs slightly burned (Chapter 7 of Home Building Code) Demo of model house on fire – local expert on materials

Panel Q and A - Paul da Silva – We Know A Lot- Helps us with what we don't know!

- What is the current standard on recommended Plant List?  
“Fire Resistant Plant List” Does it exist? – mostly antedote notice not on sci literature
- Todd – What is know is what is Fire Prone – he has seen it!  
Keith- What is important how you design your landscape than the individual plants