# Lower Mississippi Valley Joint Venture



Austin Klais

# Who is the LMVJV?

- self-directed, non-regulatory private, state, and federal conservation partnership
- that exists for the purpose of sustaining bird populations and their habitats
- through implementing and communicating the goals and objectives of relevant national and international bird conservation plans



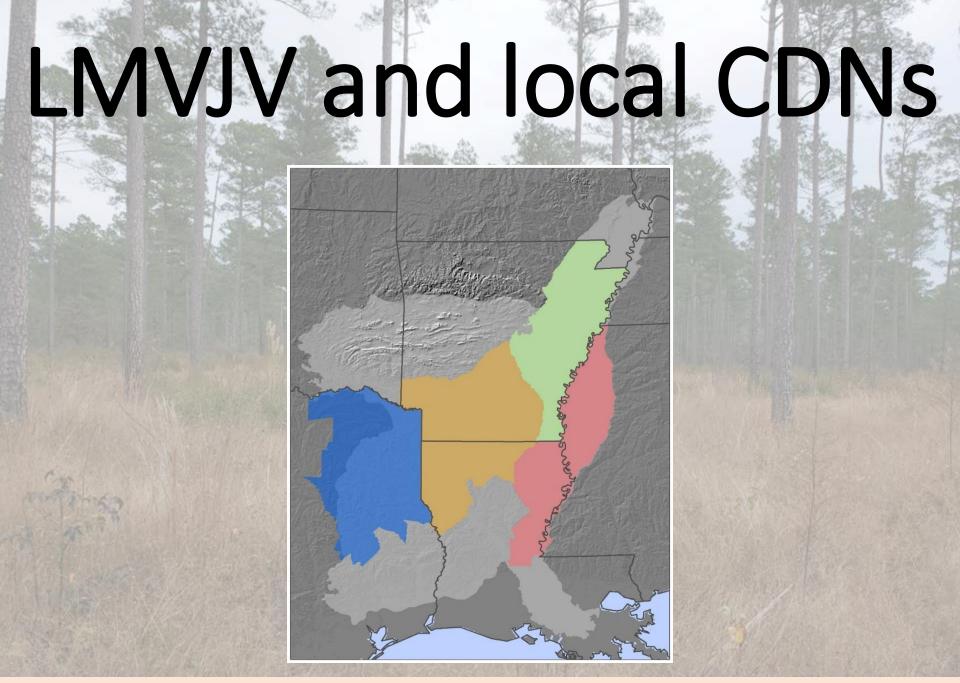
# What does the LMVJV do?

- Functions as the forum in which private, state, and federal conservation community develops
- A shared vision of bird conservation for the Lower Mississippi Valley and West Gulf Coastal Plains/Ouachita's regions
- Cooperates in its implementation
- Collaborates in its refinement

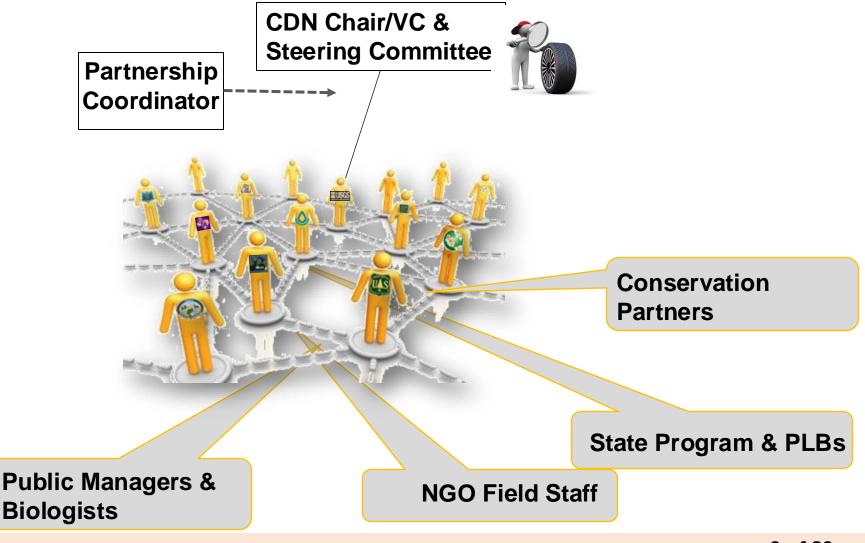
# How?

 Strategic habitat conservation Adaptive management In the end, only one of these five functional elements is the target

instant Biological Planning Outcome based monitorigo Tssumption-driven Research onservation Desi am Deliver Implementation



## **Conservation Delivery Networks**



### **Conservation Delivery Networks**

 Forum where agencies and organizations responsible for natural resource conservation coordinate on-the-ground delivery of otherwise independent efforts, prioritizing delivery actions that target high priorities for conservation.

### **2.9 billion** birds gone since 1970

Why?

-1,000,000,000 -

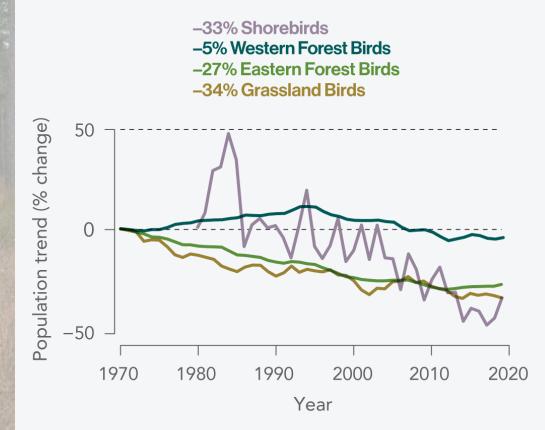
-2,000,000,000

-3,000,000,000

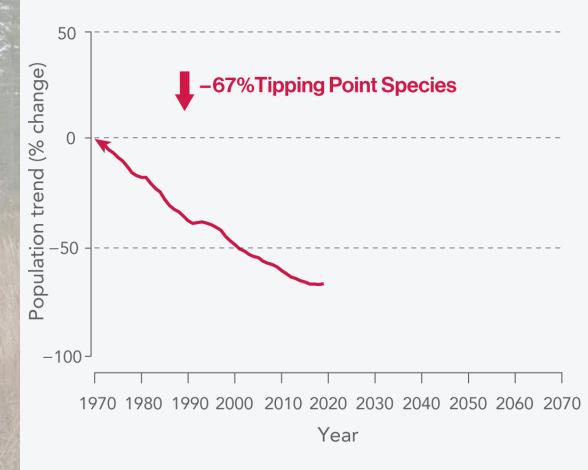
1970 1980 1990 2000 2010

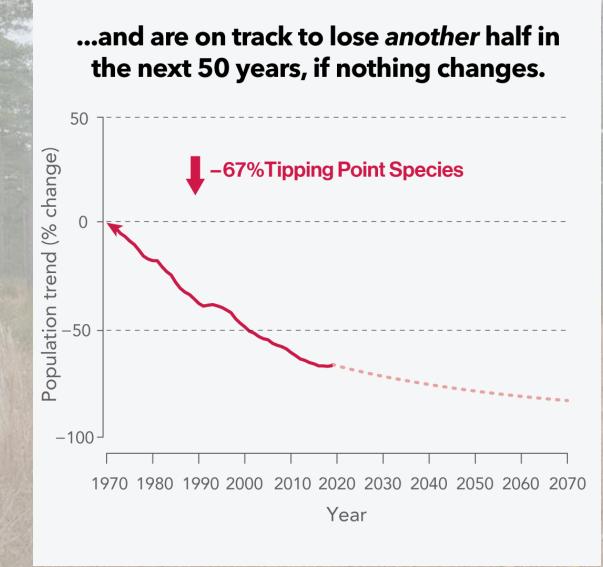
Courtesy of the Cornell Lab of Ornithology. Source: Science, 2019











#### SPECIES OF CONTINENTAL CONCERN

#### Table 1. PIF WATCH LIST FOR CONTINENTAL UNITED STATES AND CANADA

#### SEE WATCH LIST TABLE AT A GLANCE FOR DEFINITIONS (page 5)

|       |                           |                  |                      |        |            |               |                |                         |                          |                  |                     | _ |        |                            |                      |    |       |    |                       |             |                 |                        |                           |                     |
|-------|---------------------------|------------------|----------------------|--------|------------|---------------|----------------|-------------------------|--------------------------|------------------|---------------------|---|--------|----------------------------|----------------------|----|-------|----|-----------------------|-------------|-----------------|------------------------|---------------------------|---------------------|
|       |                           |                  |                      |        |            | Urgen         |                | Regions of H            | ighest Importance        |                  |                     |   |        |                            |                      |    |       |    | Urgency/<br>Half-Life | Continental | Regions of High |                        |                           |                     |
|       | Species                   |                  | Distribution Threats |        |            |               | Half-Life      |                         | al                       |                  | Breeding            |   |        | Species                    | Distribution Threats |    |       |    |                       |             |                 |                        |                           | Breeding            |
|       |                           | <sup>15</sup> 10 | ND                   |        | TN         |               | (year          |                         |                          |                  |                     |   |        |                            | P5 80                | ND | TB TN | PT |                       | (years)     | Threat          |                        |                           |                     |
|       |                           |                  |                      |        |            |               |                |                         |                          |                  |                     |   |        | Snowy Owl                  | _                    | -  | _     | -  | 64%                   |             | a               | 4                      | 11                        | Arctic Tundra       |
| FOR   | COVER: Red Watch List - S | pecies wit       | n extre              |        | nign vuin  | eradinty due  | o small popula | oon and range, nigh tr  | eats, and rangewide deci | ues (13 species) |                     |   |        | Spotted Owl                |                      |    |       |    | 15-50%                |             | F. Cl           | 34, 5, 32, 15          | 34, 5, 32, 15             | Western Forest      |
| Gu    | nnison Sage-Grouse        |                  |                      |        |            | > 50%         |                | R, E, Cl, U, D          | 16                       | 16               | Sagebrush           |   |        | Long-eared Owl             |                      |    |       |    | 91%                   |             |                 | [widespread]           | 22, 35, 33, 18, 9, 34, 15 | Forest Generalist   |
| Les   | sser Prairie-Chicken      |                  |                      |        |            | > 50%         |                | A, R, E, C              | 18, 19                   | 18, 19           | Grassland           |   | _      | Eastern Whip-poor-will     |                      |    |       | -  | 67%                   |             | F, T, Co, U, Cl | 24, 29, 27, 25         | 31. NI                    | Eastern Forest      |
| Cal   | lifornia Condor           |                  |                      |        |            | > 50%         |                | Co. D. E                | 32, 16                   | 32, 16           | Chaparral           |   |        | Mexican Whip-poor-will     |                      | -  | -     |    | 15-50%                |             | T, F, Co, Cl    | 14                     | MX-H: GT                  | Mexican Pine Oak    |
| Ber   | d-cockaded Woodpecker     |                  |                      |        |            | 79%           | 38*            | P P                     | 27, 25                   | 27, 25           | Eastern Forest      |   | >      | Black Swift                |                      | -  |       |    | 94%                   | 16          | d               | 5,10                   |                           | Western Forest      |
| Ivo   | ry-billed Woodpecker      |                  |                      |        |            | uncerta       | n              | r, u                    | 27, 25, 26, 31           | 27, 25, 26, 31   | Eastern Forest      |   |        | Rufous Hummingbird         |                      |    |       |    | 60%                   | 34          | 0,7             |                        | 26, 37, 36                | Western Forest      |
| Rec   | d-crowned Parrot          |                  |                      |        |            | > 50%         |                | H, T                    | 36                       | 36               | Tropical Dry Forest |   |        | Allen's Hummingbird        |                      |    |       | -  | 835                   | 17          | C, U            | 12, 5                  | 13                        | Chaparral           |
| Bla   | ick-capped Vireo          |                  |                      |        |            | 15-505        |                | R, U                    | 35, 20                   | MX-P             | Desert Scrub        |   |        |                            |                      |    |       |    | 15-50%                |             | 10              | 12, 5                  | MX-P: MX-H                | Mexican Pine Oak    |
| Flo   | rida Scrub-Jay            |                  |                      |        |            | > 50%         |                | U, A, D                 | 31                       | 31               | Eastern Forest      | 1 |        | Elegant Trogon             |                      | -  |       |    | 67%                   | > 50        | 1,0             | <b>1</b> 4             |                           |                     |
| Bic   | knell's Thrush            |                  |                      |        |            | 15-509        |                | 7,5,0                   | 14                       | Hisp             | Boreal Forest       | 1 |        | Lewis's Woodpecker         |                      | -  |       | -  | 68%                   |             |                 | 8, 10                  | 32, 15, 16, 34            | Western Forest      |
| Ber   | ndire's Thrasher          |                  |                      |        |            | 80%           | 18             | R, A, U, E, O           | 33, 16                   | 33               | Desert Scrub        | 1 | _      | Red-headed Woodpecker      |                      |    |       |    |                       | > 50        | r, u            | 22, 19, 27, 26, 24     | 26, 27, 25, 24            | Eastern Forest      |
| Let   | Conte's Thrasher          |                  |                      |        |            | 67%           | 27             | R, A, U, E, O           | 33                       | 33               | Desert Scrub        | 1 |        | Arizona Woodpecker         |                      | _  |       |    | 15-50%                |             | T, F, Cl        | p4                     | 34                        | Mexican Pine Oak    |
| - Dat | chman's Warbler           |                  |                      |        |            | uncerta       | in             |                         | 27, 25, 26               | cu               | Eastern Forest      |   |        | Gilded Flicker             |                      |    |       |    | 58%                   | 33          | R, U            | 33                     | 33                        | Desert Scrub        |
| Go    | iden-winged Warbler       |                  | -                    | -      |            | 00%           | н.             | <u>т. т. и</u>          | 12, 23, 28               | CR, PA, HN, NI   | Eastern Forest      |   |        | Green Parakeet             |                      | 4  | 444   |    | 15-50%                |             | T, H            | 36                     | 36                        | Tropical Dry Fores  |
|       | Iden-cheeked Warbler      |                  |                      |        |            | > 50%         |                | <b>1.5.U</b>            | 20                       | NI, HN, MX-H     | Western Forest      | 1 |        | Olive-sided Flycatcher     |                      | _  |       |    | 78%                   | 24          | τ, η, α         | 4, 10, 5               | CO, EC, VE                | Boreal Forest       |
|       | chman's Sparrow           |                  |                      |        |            | 72%           | 24             |                         | 27, 31                   | 27, 31           | Eastern Forest      | 1 |        | Pinyon Jay                 |                      |    |       |    | 84%                   | 19          | F, R            | 16, 9                  | 16, 9                     | Western Forest      |
|       | tmarsh Sparrow            |                  |                      |        |            | 94%           |                | CI, U                   | 30                       | 27, 30           | Coastal Saltmarsh   |   |        | Yellow-billed Magpie       |                      |    |       |    | 49%                   | 11          | P               | 32                     | 12                        | Western Forest      |
|       | colored Blackbird         |                  |                      |        |            | > 50%         | > 50           | A                       | 12                       | 12               | Wetland             |   |        | Chestnut-backed Chickadee  |                      |    |       |    | 51%                   | 46          | r, u            | 5                      | 5                         | Western Forest      |
|       | ick Rosy-Finch            |                  |                      |        |            | 95%           |                | 0                       | 10,9                     | 16               | Alpine Tundra       | 1 |        | Mexican Chickadee          |                      |    |       |    | 15-50%                |             |                 | 34                     |                           | Mexican Pine Oak    |
|       | own-capped Rosy-Finch     |                  |                      |        |            | 25%           |                | 0                       |                          | 16               | Alpine Tundra       | 1 |        | Oak Titmouse               |                      |    |       |    | 53%                   | 40          | r, u            | 32                     | 32                        | Western Forest      |
| Bro   | wn-capped kosy-rinch      |                  |                      |        |            | 30%           |                | 0                       | 40                       | 40               | Autor Instant       |   |        | Black-capped Gnatcatcher   |                      |    |       |    | 15-50%                |             | A, R, U         | 34                     | 34                        | Desert Scrub        |
| PRE   | VENT DECLINE: "R" Yellov  | w Watch L        | ist - Spe            | cies r | not declin | ing but vulne | able due to sm | all range or population | and moderate threats (12 | species)         |                     |   |        | Wrentit                    |                      |    |       |    | 24%                   | > 50        | U               | 32, 15                 | 32, 15                    | Chaparral           |
| The   | mmulated Owl              |                  |                      |        |            | uncerta       | n              | 1, C, U                 | 34, 16, 10               |                  | Western Forest      | 1 |        | Wood Thrush                |                      |    |       |    | 59%                   | 31          | F, T, U, E, I   | 28, 29, 27, 24, 13     | BZ, GT, HN, MX-C          | Eastern Forest      |
| Luc   | cifer Hummingbird         |                  |                      |        |            | uncerta       | 'n             | ci                      | 35                       | MX-H; MX-P       | Desert Scrub        | 1 |        | California Thrasher        |                      |    |       |    | 58%                   | 34          | U               | 32                     | 32                        | Chaparral           |
| Gri   | ay Vireo                  |                  |                      |        |            | none          | > 50           | T, F, D                 | 16, 34                   | MX-B             | Western Forest      | 1 |        | Sprague's Pipit            |                      |    |       |    | 73%                   | 27          | A, R, E, I      | 11                     | 36, 37, 35, 21, 34        | Grassland           |
| Isla  | and Scrub-Jay             |                  |                      |        |            | uncerta       | n              | F, D                    | 12                       | 32               | Western Forest      | 1 |        | Chestnut-collared Longspur |                      |    |       |    | 85%                   | 21          | A, R, E, I      | 11, 17                 | 35, 34                    | Grassland           |
| Gi    | Ifornia Gnatcatcher       |                  |                      |        |            | uncerta       | n              | U                       | 32                       | 32               | Chaparral           | 1 |        | McCown's Longspur          |                      |    |       |    | 85%                   | > 50        | A, R, E, I      | 11, 18, 17, 10         | 35, 21, 18, 34, 19        | Grassland           |
| Mc    | Key's Bunting             |                  |                      |        |            | uncerta       | n              | ci                      | 1                        | 1                | Arctic Tundra       | 1 | $\leq$ | Prothonotary Warbler       |                      |    |       |    | 34%                   | > 50        | T, U, P         | 26, 27                 | RA, CR                    | Eastern Forest      |
|       | ima Warbler               |                  |                      |        |            | uncerta       | n              |                         | 35                       | Madt             | Mexican Pine Dak    | 1 |        | Virginia's Warbler         |                      |    |       | -  | 38%                   | > 50        | τ.ε.υ           | 16, 34                 | Mx-P                      | Western Forest      |
|       | tland's Warbler           |                  |                      |        |            | none          |                | L                       | 12                       | 85               | Eastern Forest      | 1 |        | Connecticut Warbler        |                      |    |       |    | 51%                   | > 50        | 1.1             | 6, 8, 12               | 60                        | Boreal Forest       |
|       | nslow's Sparrow           | -                |                      |        |            | uncerta       | n >50          | A, U                    | 24, 22                   | 25, 26, 27       | Grassland           |   | $\sim$ | Kentucky Warbler           |                      |    |       |    | 25%                   | > 50        | τ.τ.υ           | 24, 25, 27, 28         | BZ, GT, HN, MX-C          | Eastern Forest      |
|       | Ison's Sparrow            | -                |                      |        |            | uncerta       |                | C, A, U                 | 7, 11, 6, (14)           | 37, 27           | Wetland             | 1 |        | Cape May Warbler           |                      |    |       |    | 795                   | > 50        |                 | 6, 6, 12, 7            | Hisp, BS, CU              | Boreal Forest       |
|       | aside Sparrow             |                  |                      |        |            | none          | >50            | CLU                     | 37, 30, 27               | 37, 27           | Coastal Saltmarsh   |   |        | Cerulean Warbler           |                      |    |       |    | 735                   | 26          | TEEU            | 28                     | 60                        | Eastern Forest      |
|       | dubon's Oriole            |                  |                      |        |            | uncerta       | _              | 1                       | 37, 30, 27               | 36               |                     |   | $\sim$ | Prairie Warbler            |                      |    |       |    | 545                   | > 50        | T, T, U         | 27, 29, 28, 24, 25     | BS, CU, Hisp              | Eastern Forest      |
|       |                           |                  |                      |        |            | _             | _              |                         | r~                       | Pro-             | Tropical Dry Forest |   |        | Grace's Warbler            |                      |    |       |    | 52%                   | > 50        | T, F, Cl        | 34, 16                 | BZ, GT, HN, MX-H          | Mexican Pine Oak    |
| REV   | ERSE DECLINE: "D" Yellow  | Watch Li         | it - Spec            | ies w  | rith popul | ation decline | and moderate   | to high threats (55 sp  | cies)                    |                  |                     |   |        | Canada Warbler             |                      |    |       |    | 63%                   | > 50        | LI              | 8, 12, 14              | 0                         | Boreal Forest       |
| Mo    | ountain Quail             |                  |                      |        |            | 19%           | > 50           | CL F                    | 32, 15, 5                | 32, 15, 5        | Western Forest      | 1 |        | Rufous-winged Sparrow      |                      |    |       |    | 15-50%                |             | R.A.U           | 33, 34                 | 13, 34                    | Desert Scrub        |
| Sca   | aled Quail                |                  |                      |        |            | 67%           | 8              | R, A, CI                | 35, 18                   | 35, 18           | Desert Scrub        | 1 |        | Black-chinned Sparrow      |                      |    |       |    | 61%                   | > 50        | RU              | 15, 12, 14             | 34, 35                    | Chaparral           |
| Gri   | eater Sage-Grouse         |                  | $\square$            |        |            | 67%           | > 50           | E.R.D.A.CL              | 10, 17, 9                | 10, 17, 9        | Sagebrush           | 1 |        | Five-striped Sparrow       |                      |    |       |    | 15-50%                |             |                 | 14                     | MX-P                      | Tropical Dry Forest |
|       | oty Grouse                |                  |                      |        |            | 52%           | > 50           |                         | 5                        | 5                | Western Forest      | 1 |        | Baird's Sparrow            |                      |    |       |    | 725                   | > 50        |                 | 11                     | 14                        | Grassland           |
|       | eater Prairie-Chicken     |                  |                      |        |            | > 50%         | -              | ALLI                    | 19                       | 19               | Grassland           |   | _      | Le Conte's Sparrow         |                      |    |       |    | 61%                   | 43          | A,U, Cl         | 6, 7, 11               | 25, 21, 20, 37            | Grassland           |
|       | hite-crowned Pigeon       |                  |                      |        |            | 15-505        |                | T.H                     | 31                       | 31               | Mangrove            |   |        | Harris's Sparrow           |                      | -  |       |    | 63%                   |             | A, U            | 1.7                    | 19, 21                    | Arctic Tundra       |
|       | nd-tailed Pigeon          |                  |                      |        |            | 60%           | >50            | 5.7                     | 5, 32, 34                |                  | Western Forest      |   |        | Bobolink                   |                      |    |       |    | 59%                   | 48*         | A.U             | 11, 13, 12, 17, 14, 23 | 80                        | Grassland           |
|       | ingrove Cuckoo            |                  |                      |        |            | 15-505        |                | U,T                     | 11                       | -                | Mangrove            |   |        | Cassin's Finch             |                      | -  |       |    | 68%                   | > 50        |                 | 10. 9. 15              | 16                        | Western Forest      |
|       | ck-billed Cuckoo          |                  |                      |        |            | 60%           | 37*            | τ.τ.υ                   | 12, 13, 23, 28           | VE, MX-P, EC     | Eastern Forest      |   |        |                            |                      |    |       |    |                       |             |                 |                        |                           | Boreal Forest       |
|       | hiskered Screech-Owl      |                  |                      |        |            | 15-505        |                | 5,0,0                   |                          | 14               | Mexican Pine Oak    |   |        | Evening Grosbeak           |                      |    |       |    | 92%                   | 38*         | ,               | 14, 12, 9, 10, 5       | 6, 8                      | sores rorest        |
| we we | inkered screech-owl       |                  |                      |        |            | 15-509        | · [            | r, u, ci                |                          | P.4              | mexican Pine Oak    |   |        |                            |                      |    |       |    |                       |             |                 |                        |                           |                     |

Partners in Night 2016 Landbird Conservation Plan Revision

7 =

### **Priority Bird Plans**

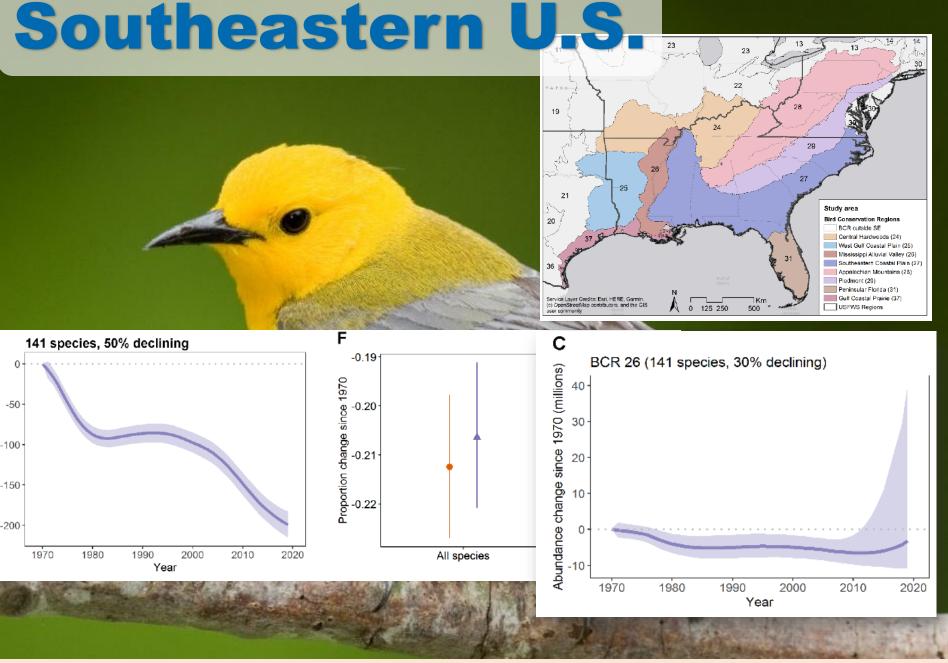
- Identifies priority bird species
- Identifies key habitat characteristics
- Population goals
- Key Management
- Decision support tools

Lower Mississippi Valley Joint Venture SHOREBIRD PLAN SUMMARY 2019





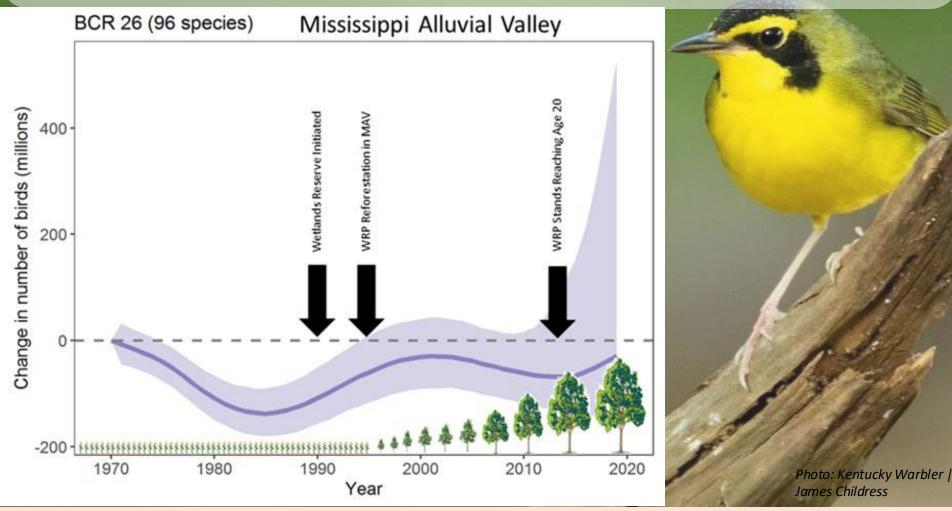




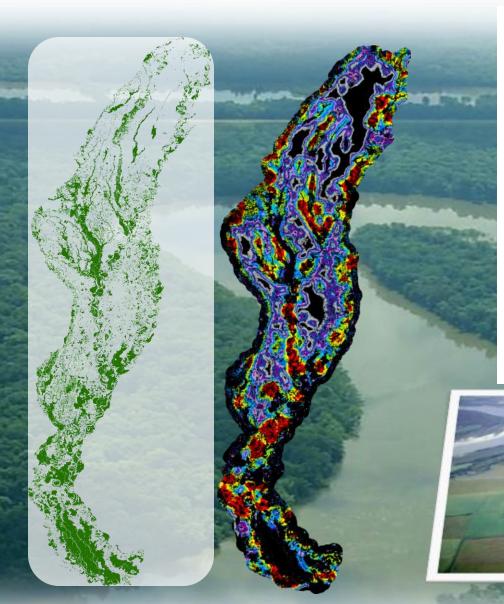
Michel et al. 2023

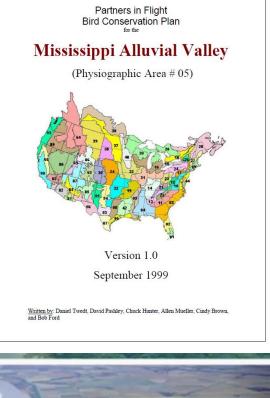
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## Mississippi Alluvial Valley (MAV)



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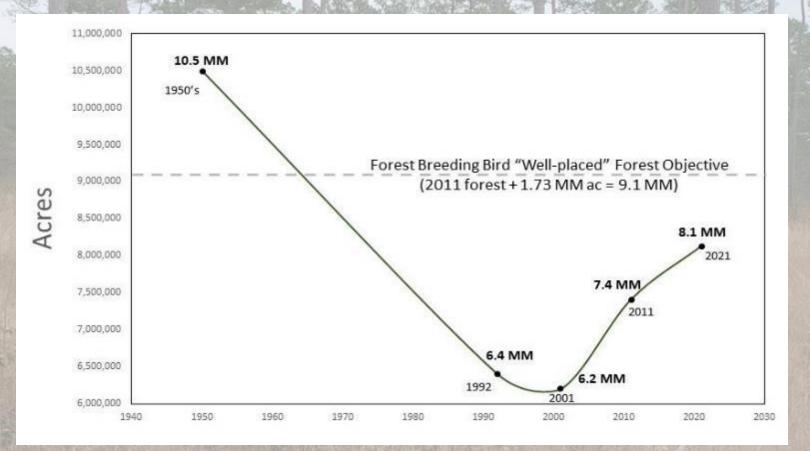








# **MAV Restoration Goal**



consider Your Objectives Opem Pine

CA AND ALL

Red-Cockaded woodpecker 40-60 Basal Area (sq tt/acre)

### Woodland

Basal Area Target : 40 - 60 sq ft/acre

Open Pine Priority Bird Species NEED specific habitat features!



If your objective is to manage for Open Pine Woodland bird species, mature pine stands should be thinned to a basal area **below 60 sq ft/acre.** 

For Open Pine Woodland birds to thrive, ALL of their habitat needs should be met including: nesting, over wintering, and foraging.

Red-cockaded Woodpecker (Betty Rizzotti); Brown-headed Nuthatch (ABC); Bachman's Sparrow (Greg Lavaty); Red-headed Woodpecker (Karl Krueger)



Brown-headed Nuthatch 20-60 Basal Area (sq ft/acre)



Bachman's Sparrow < 60 Basal Area



Red-headed Woodpecker 40-60 Basal Area (sq ft/acre) Consider Your Objectives

### Pine

### Savannas

Basal Area Target : 15 - 30 sq ft/acre

Open Pine Priority Bird Species NEED specific habitat features!

Henslow's Sparrow

< 40 Basal Area

If your objective is to manage for Pine Savanna bird species, mature pine stands should be thinned to a basal area **below 40 sq ft/acre.** 

For Pine Savanna birds to thrive, ALL of their habitat needs should be met including: nesting, over wintering, and foraging.

Henslow's Sparrow (Lev Frid); Northern Bobwhite (Jim Giocomo); LeConte's Sparrow (Ian Maton); Prairie Warbler (Ray Hennessy )



Northern Bobwhite **40 Basal Area** (sa ft/acre)



LeConte's Sparrow **< 40 Basal Area** (sa ft/acre)



### AR-LA CDN Open Pine Landscape Restoration RCPP 2319 Purpose

- Objective 1 open pine habitat on 30,000 acres of private lands
  - 9,600 acres of management practices planned FY22 (2,150 land acres)
  - 20,700 acres of management practices planned FY23 (2,810 land acres)
- Objective 2 open pine habitat on 30,000 acres contribution
  - 61,056 acres management contributed
- Project will benefit
  - Priority birds
  - T&E species
  - SWAP SGWN

MAV Challenges & Opportunities

- Hydrology changes
- Forest stand condition
  Forest
  - management

WGCPO Challenges & Opportunities

- Prescribed fire
- Landowner barriers
- Economic tradeoffs

- Bird response metrics
- Testing of assumptions