

Research Update, October 2011



New Approach to Research Update

- only present new information
 - not necessarily summarize or repeat current status on each ongoing project
- as projects move from research to management application, they will be presented as Program Updates, not Research Updates
 - field application of conventional PZP
 - application of the new population estimation techniques

Aerial Population Survey Research

- still several publications in preparation or in review
- as we transition to applying the new techniques as management tools, they will no longer be included in this Research Update for the Board

Population Inventory Position

- Lead Position was created, advertised, interviews conducted, offer made ...
 - offer was declined by the applicant
 - revising the announcement and will re-advertise
- USGS conducted a training workshop in August
 - several field specialists with the largest populations
- contract for statistical analysis of survey data has been created for the next year

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Task 1: Safety and Mechanism of Action

- OSU work has largely been completed
- no serious safety concerns were noted
- no reported affects on non-target tissues
- researchers made recommendation to test 2 formulations in the captive breeding trials
- final titer analyses are ongoing and publication of results awaits these analyses

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Task 2: Regulatory Approvals

- Mark Fraker (TerraMar Environmental Research) obtained necessary EPA approvals for use of SpayVac® in the current projects
- EPA registration of a product containing the "new active ingredient" PZP is still in-process
 - based on HSUS' application with ZonaStat-H
 - approvals of other products that use PZP await this registration

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Task 3: Population and Genetic Modeling

- to help establish likely parameters for safe use to limit population growth rates
- Research Advisory Team discussed preliminary results of modeling done by USGS
- Team made recommendation to move forward with the Vortex Population Viability Analysis software package while refining some of the inputs for the simulations
- USGS is preparing a work plan

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Task 4: Captive Breeding Trial

- collaboration of USGS, BLM, TerraMar, APHIS
- began March 30, 2011
- BLM facility in Pauls Valley, Oklahoma.
- 2 formulations of SpayVac® are being tested
- 90 mares total (30 each treatment, 30 controls)
- 12 stallions (one rotated into each pasture every 2 weeks, followed by a rest period)

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Task 4: Captive Breeding Trial

- monthly blood sampling to monitor titer levels
- breeding activity is monitored to ensure that stallions are covering mares
- breeding season will end in October
- first pregnancy determinations in December of 2011
- study is scheduled for 5 years of follow-up

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Task 5: Controlling Population Growth

- will be considered as results from the captive breeding trial are received

Longer Lasting Conventional PZP

- collaboration of Dr. Turner and BLM
- pen trial began March 2011
- facility at the Carson City Prison, NV
- 105 mares in several treatment groups
- stallions are being rotated through the pens
- breeding activity monitored by prison
- sampling schedule was recently adjusted
 - address questions re. titer pattern of PZP-22

HSUS Project: Sand Wash and Cedar Mt

- preliminary results reported, March 2011
- Utah BLM is proposing a CTR gather next year
- monitoring will continue at least through 2012
 - BLM & HSUS discussing further monitoring activity
- no success darting horses in Cedar Mt HMA
- no new information re. remote darting with PZP in the Jarita Mesa Territory in New Mexico

Field Application of Fertility Control

- manuscript describing the efficacy of treatments in the Pryors, Little Bookcliffs and McCullough Peaks is *in press*, accepted by the Wildlife Society Bulletin
- current field applications being done by BLM are not part of an ongoing research project
- future updates on this activity will be included in the general Program updates for the Board

Genetics Assistance Agreement

- genetic diversity evaluation of individual wild horse herds is on-going
- Dr. Gus Cothran's comprehensive analysis of genetic diversity among all BLM wild horse herds is expected in FY 2012
