STUDY TITLE:

OvoControl® P 0.5% (nicarbazin)
Population Dynamics in Pigeons
Interim Report

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COLLABORATORS

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SPONSOR:

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I. SUMMARY

At the request of the Linda Vista Maintenance Assessment District ("LVMAD"), OvoControl® P was deployed at a pigeon-impacted site in San Diego, CA.

The treated flock of feral pigeons (*Columba livia*) was evaluated for absorption of DNC, the biomarker for nicarbazin. Presence of DNC is a very good indicator that egg hatchability will be impaired (Avery, 2008). This data was submitted to EPA to fulfill a condition of registration for field efficacy.

The same study site was monitored for more than 12 months for purposes of evaluating population dynamics.

Pigeon numbers were monitored bi-weekly by the Pest Management Professional (Lloyd Pest Control) servicing the site. The site monitor from LVMAD conducted weekly observations. The pigeon population at the site has been reduced by approximately 53% over the initial 12 months of the study.

II. SITE CHARACTERISTICS

The study site is located in a section of San Diego known as Linda Vista. This area of the city is characterized by predominately 1950's vintage structures, strip malls and both single family and multi-unit homes and single story structures. The impacted area consists of one city block along Linda Vista Road, between Ulric Street and Comstock Road. The east side of Linda Vista Road is dominated by retail businesses – grocery store, fast food, strip mall and a skating rink. Parallel to the street, to the west, is a narrow park area consisting of grass and mature trees. An aerial photo of the study site is attached (Google Earth).

Owing to its large Asian population and popular feeding of the birds, Linda Vista has a chronic pigeon problem. There are two centers of activity – one at the south end, a roller skating rink, and another at the north end, a Korean church. There is an established population of feral pigeons estimated at the beginning of the study at 150 birds at the south site and 250 birds at the north. Consistent with previous population dynamics studies (Murton, 1972), the two flocks are separate and do not mix. The north end of the study site (Korean church) represents a negative control.

On October 1, 2007, in collaboration with Lloyd Pest Control ("Lloyd") of San Diego, California, Innolytics installed a single (1) OvoControl feeding station (Sweeney DF3OC) on one rooftop location in the southern study area (roller skating rink). Lloyd provided all necessary services and management to operate and maintain the feeding station during the study period.

Pigeons were acclimated to a baiting program with OvoControl P. A Smart Scouter camera was used to record the daily feeding event. Approximately 3,000 photos recorded the daily feeding during the study and sample photos of the feeding event are attached.

During the initial 12 months of the study, there were no recorded incursions by non-target species either captured on the camera or by the site monitors.

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III. DISCUSSION AND RESULTS

Once conditioned to the bait, the birds responded predictably to the daily feeding event. Each morning, the feeder triggers and dispenses the appropriate quantity of bait. The application rate for OvoControl is 1lb/80 birds/day. Bait quantity was adjusted by the Lloyd technician from time-to-time, consistent with bird numbers. Within the first few days, the birds were consuming all the bait within minutes of the feeding event and no excess bait remained.

Pigeons feed voraciously immediately after sunrise. Therefore, timing of the feeding event was adjusted periodically to allow for changes in sunrise time. Feeding time was also adjusted to compensate for competitive feeding by local well-intentioned bird feeders.

Starting with approximately 150 pigeons, the population at the treated site (south) has been reduced to roughly 70 birds or 53% during the first year of treatment. The population of untreated birds at the north end of the study area has remained unchanged at approximately 250 birds.

IV. FURTHER TREATMENT

The Linda Vista study site will continue to be treated with OvoControl P until October 2009, a total of 24 months. A final report will be issued in late 2009.

V. CONCLUSION

During the first 12 months of OvoControl treatment, the population of pigeons was reduced through attrition by 53%. The rate of attrition will be monitored during the second year to determine if the population continues to decline in response to OvoControl treatment.

CITED REFERENCES

Avery, M. et al. (2008), *Nicarbazin bait reduces reproduction by pigeons* (Columbia livia). Wildlife Research, **35**, 80-85.

Murton, R., R. Thearle and J. Thompson (1972*b*). *Ecological studies of the feral pigeon Columba livia* var. I. Population, breeding biology and methods of control. J. *Appl. Ecol*., **9**, 835-874.


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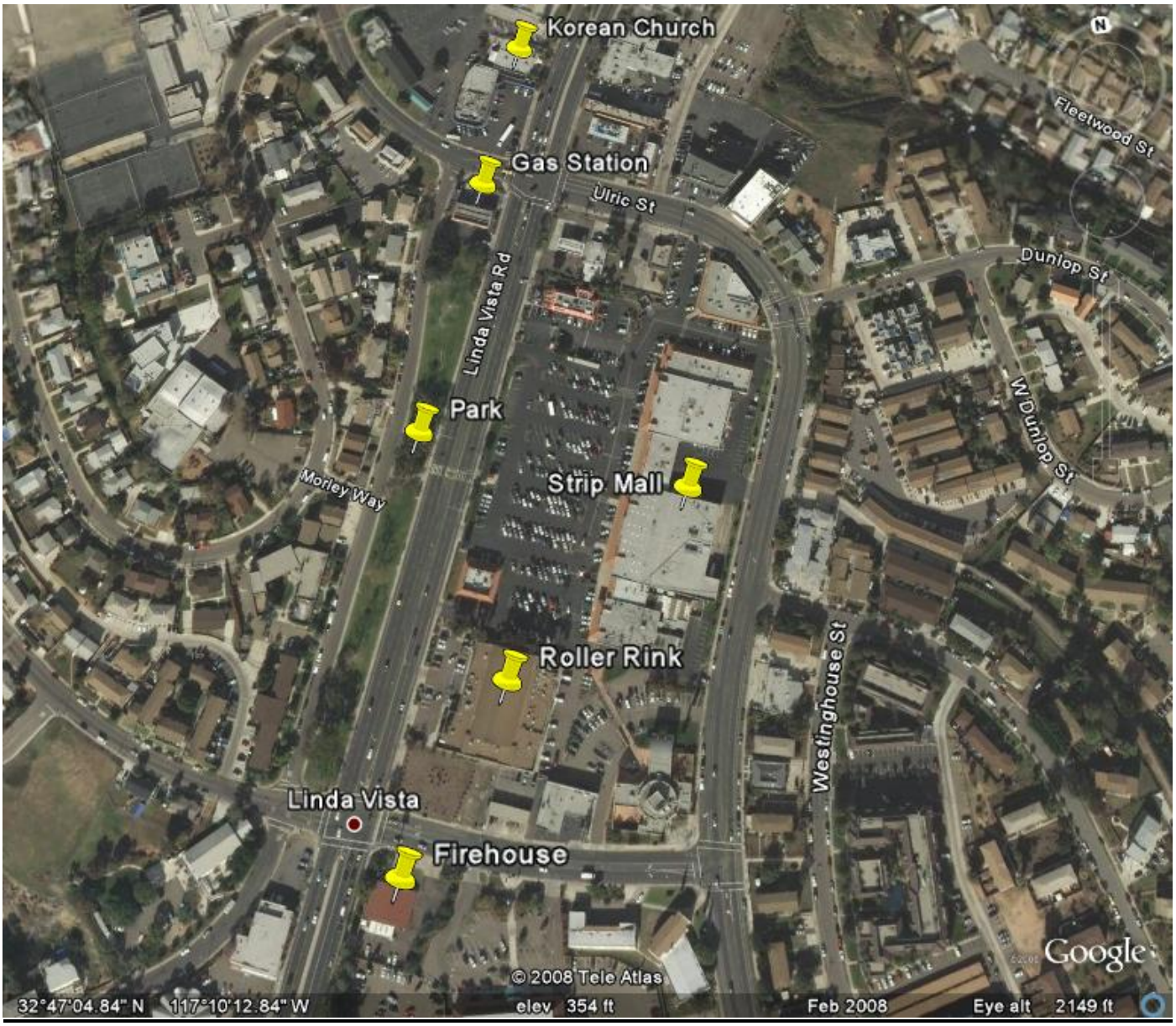
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