FINAL ENVIRONMENTAL IMPACT STATEMENT

INTERNATIONAL MARKET PLACE REVITALIZATION PROJECT

Appendix 9

Avifaunal and Feral Mammal Field Survey

AVIFAUNAL AND FERAL MAMMAL FIELD SURVEY OF THE INTERNATIONAL MARKET PLACE IN WAIKIKI – PROPOSED REDEVELOPMENT TMK:2-6-022:38 and 43

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INTRODUCTION

This report presents the findings of a one day (2 July 2004) field survey of birds and mammals at TMK: 2-6-022:38 and 43 (International Market Place in Waikiki, Oahu. References to pertinent published and unpublished sources are also included to provide a broader perspective of birds and mammals known from the urban Honolulu area. The goals of the field survey were to:

1- Document the species of birds and mammals presently found on or near the property.

2- Determine the present number of White Tens (a native seabird that is listed as threatened by; the State of Hawaii) and how many pairs may be nesting in the trees at the International Market Place, Waikiki.

GENERAL SITE DESCRIPTION

This property is surrounded by urban development. Despite this fact the International Market Place, Waikiki has a number of large trees that provide an oasis of "forest-like" habitat in the midst of urban Waikiki. These trees provide nesting and resting sites as well as foraging opportunities for birds in this area.

METHODS OF THE FIELD SURVEY

The property was surveyed by walking through the entire site and searching the trees with the aid of binoculars. The survey was conducted both early and late in the day when birds are most active and detectable. All species of birds and mammals seen on the survey were recorded. The focus of the effort was directed toward searching for the native White Ten (*Gygis alba*).

RESULTS OF THE FIELD SURVEY

Native Land Birds:

No native land birds were recorded nor would any be expected in this area due to its location and elevation (Pratt et al. 1987, Hawaii Audubon Society 1997).

Native Waterbirds:

No native waterbirds were found on the survey. The absence of wetland habitat at this site precludes the occurrence. Black-crowned Night Heron (*Nycticorax nycticorax*) can be seen foraging along the Ala Wai Canal located mauka of this property (Bruner 1997).

Seabirds:

Four nesting pairs and three single White Terns (*Gygis alba*) were observed in the trees on this property during the survey. The White Tern is listed by the State of Hawaii Department of Land and Natural Resources Division of Forestry and Wildlife (DOFAW) as threatened on Oahu. This listing only refers to the Oahu population of this species. It is not federally listed as threatened or endangered. White Terns on Oahu have received extensive study (VanderWerf 2003). VanderWerf (pers. comm.) reported that seven to eight pairs were nesting in the trees on the International Market Place during 2002 when he last surveyed the site for terns. The nesting season at this site is generally January through June but some pairs will nest at any month of the year (VanderWerf pers. comm.). Hawaii Audubon Society (1997) notes that "most adults arrive in February and depart by September, but some pairs remain on O'ahu year round and nest two or three times".

No other species of seabirds were observed on the survey nor would any be expected at this location (Pratt et al. 1987, Hawaii Audubon Society 1997).

Migratory Shorebirds:

No migratory shorebirds were tallied on this survey. This was not unexpected since no appropriate habitat for these birds exists on the site. In addition, at this time of year shorebirds are on their breeding grounds in the arctic.

Alien (introduced) Birds:

A total of ten alien species of birds were tallied on the survey. Table One gives the names of these birds. None are listed as threatened or endangered. The array of species found on the survey was typical of what might be expected at this location (Hawaii Audubon Society 1997).

Mammals:

Two Roof Rats (*Rattus rattus*) were seen in the trees during the survey. This alien and ubiquitous rodent has caused damage not only to agricultural crops but is a significant nest predator (Tomich 19986). No mice (*Mus musculus*) were observed but likely occurs on this site. In addition, the Norway Rat (*Rattus norvegicus*) can be found in Waikiki and may frequent the property. Feral cats (*Felis catus*) occur in Waikiki and may frequent the property, although none were observed on the survey.

CONCLUSIONS

The typical array of alien birds found in this region of Oahu were observed on the survey. No unexpected species were noted. The presence of the threatened White Tern was also expected given the extensive documentation of the range of this species on

Oahu. The absence of native land birds, waterbirds, and migratory shorebirds was expected due to an absence of appropriate habitat for these species. Feral mammal observations were limited to the Roof Rat but other alien mammals likely occur from time to time on the property. The value of this property for birds is the presence of large trees for nesting, roosting and foraging. Removal or significant trimming of these large trees will affect the relative abundance of birds at this location.

RECOMMENDATION

The White Tern is not federally listed as either threatened or endangered. VanderWerf of USFWS Honolulu (pers. comm..) suggested that because the White Tern is not federally listed any concerns about the impact of proposed development on this species be directed to David Smith, Oahu Biologist with DLNR DOFAW (808) 973-9787. He further suggested that trimming of the trees be done outside of the major breeding season for White Terns. This would generally mean in the months of October and November.

TABLE ONE

Alien (introduced) birds recorded on a field survey of TMK:2-6-022:38 and 43 International Market Place, Waikiki, Oahu on 2 July 2004.

COMMON NAME	SCIENTIFIC NAME
Rock Dove	*Columba livia*
Spotted Dove	*Streptopelia chinensis*
Zebra Dove	*Geopelia striata*
Red-vented Bulbul	*Pycnonotus cafer*
Red-whiskered Bulbul	*Pycnonotus jocosus*
Japanese White-eye	*Zosterops japonicus*
Common Myna	*Acridotheres tristis*
Red-crested Cardinal	*Paroaria coronata*
House Finch	*Carpodacus mexicanus*
House Sparrow	*Passer domesticus*

SOURCES CITED

Bruner, P.L. 1997. Faunal (Bird and Mammal) Field Survey of Property involved in the Ala Wai Canal Dredging Project, Oahu. Unpubl. ms. Prep. for Belt Collins Hawaii.

Hawaii Audubon Society. 1997. Hawaii's Birds. Fifth ed. Hawaii Audubon Society, Honolulu. 112pp.

Honacki, J.H., K.E. Kinman and J.W. Koeppl eds. 1982. Mammal species of the World: A taxonomic and geographic reference. Allen Press, Inc. and the Association of Systematic Collections. Lawrence, Kansas. 694pp.

Pratt, H.D., P.L. Bruner and D.G. Berrett. 1987. A field guide to the birds of Hawaii and the tropical Pacific. Princeton University Press. Princeton, New Jersey. 409pp.

Pyle, R.L. 2002. Checklist of the birds of Hawaii – 2002. 'Elepaio 62(6):137-148.

Tomich, P.Q. 1986. Mammals in Hawaii. Bishop Museum Press. Honolulu. 375pp.

VanderWerf, E.A. 2003. Distribution, abundance and breeding biology of White Terns on Oahu, Hawaii. Wilson Bull. 115:258-262.

VanderWerf, E.A. (Ecological Services USFWS Honolulu)