



Felix P. Camacho  
Governor

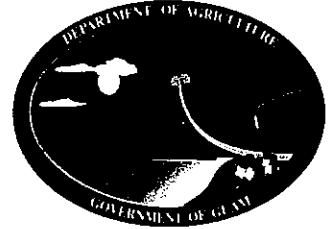
Michael W. Cruz, M.D.  
Lt. Governor

## Department of Agriculture Dipattamenton Agrikottura

163 Dairy Road, Mangilao, Guam 96913

Director's Office  
Agricultural Dev. Services  
Animal Health  
Aquatic & Wildlife Resources  
Forestry & Soil Resources  
Plant Nursery  
Plant Protection & Quarantine

734-3942/43; Fax 734-6569  
734-3946/47; Fax 734-8096  
734-3940  
735-3955/56; Fax 734-6570  
735-3949/50; Fax 734-0111  
734-3949  
472-1651; 475-1426  
Fax 477-9487



Paul C. Bassler  
Director

Joseph D. Torres  
Deputy Director

December 28, 2007

### Memorandum

**To:** Guam State Clearing House  
**From:** Director, Department of Agriculture  
**Subject:** Review of Brown Treesnake Grant

Attached for your information and approval are the Project Proposals for the Federal Brown Treesnake Research and Control Program. We are requesting for the amount of \$310,192.00 to fund brown treesnake work in an effort to benefit the endangered Guam rail, Guam Micronesian kingfisher, Mariana crow, Mariana fruit bat, and other native species. The brown treesnake program continues to be a vital component of Guam's endangered species recovery program.

In light of the fact that this application constitutes a continuation of previously approved project activities, I am requesting your approval by the State Clearing. Thank you for your assistance in this matter.

Handwritten signature of Paul C. Bassler in black ink.  
PAUL C. BASSLER

Attachment(s):



# GUAM STATE CLEARINGHOUSE (GSC)

Grant Project Application  
Notification of Intent to Apply for Federal Assistance

Date received: \_\_\_\_\_  
 Received by: \_\_\_\_\_  
 SAI No.: \_\_\_\_\_  
*for Guam State Clearinghouse use only*

DUNS Number **855023235**

**1) Applicant Department/Entity:**

Agriculture

**2) Division:**

Aquatic and Wildlife Resources

**3) Applicant Address:**

Washington, DC  
20240

**4) Contact Person, Phone Number, E-mail:**

Celestino F. Aguon 735-3979  
tino\_aguon@hotmail.com

**5) Due Date to Federal Agency:**

n/a

**6) Federal Funds:**

a. Grant \$	310,192
b. Other \$	0

**7) Non-Federal, Matching Funds:**

a. Local \$	0
b. In-Kind \$	0
c. Other \$	0

**8) Total Funds: \$**

**\$310,192**

**9) Federal Program/ Project**

Economic, Social, and Political  
Development of the Territories; 2008  
Brown Treesnake Grant

**10) Federal Domestic Catalog No., Public  
Law No. and Title:**

15.875; CFR Part 12, Subpart C.  
Section 12.62

**11) Federal Agency Name:**

Office of Insular Affairs, Department  
of the Interior

**12) Federal Agency Address:**

Washington, DC  
20240

**13) Type of Application:**

New Grant     Continuing Grant\*     Supplemental Grant\*     Other (Specify) \_\_\_\_\_

*\*Proceed to Question 14. Question 14 only applicable to CONTINUING and SUPPLEMENTAL grants.*

14) If grant application is for a continuing or supplemental grant, please provide the following:

(a) Initial date of grant period n/a

(b) Guam State Clearinghouse Application number n/a

Also, what grant year of the program's effective funding period, does this application impact?

n/a

15) Has federal funding agency been notified?  Yes  No

16) During which Fiscal Year will this program be implemented? Fiscal Year 2008

17) If project includes local funding, identify source and rationale (BE SPECIFIC):

n/a

18) Is this program:  BUDGETED (please identify legal budget authority: \_\_\_\_\_ )  
 NON-BUDGETED

19) Will this program require hiring of new employees? If YES, please provide number of employees (both existing and new) and justification.  YES (Existing \_\_\_\_\_ New \_\_\_\_\_ )  NO

\_\_\_\_\_

20) Funding Method:

YEAR		FEDERAL		LOCAL	TOTAL
First Year	100 %	<u>310,192</u>	%	<u>0</u>	<u>\$ 310,192</u>
Second Year	_____ %	_____	%	_____	_____
Third Year	_____ %	_____	%	_____	_____
Fourth Year	_____ %	_____	%	_____	_____
Fifth Year	_____ %	_____	%	_____	_____

21) List of Departments or Agencies that would be affected directly or indirectly by this application:

Department of Agriculture's Division of Aquatic and Wildlife Resources  
Department of Administration (Payroll/General Services Agency/Human Resources)  
Bureau of Budget and Management Research

22) Summary of Project (Attach Supporting Documents as Necessary):

See attachment.

23) Does this application require an Environmental Impact Study?  
 YES  NO

24) Will this application conflict with any existing law?  
 YES  NO

25) Is enabling legislation required?  
 YES  NO

26) Will this program require maintenance of effort?  
 YES  NO

27) Does the granting agency provide for in-kind services to offset the local matching requirement?  
 YES  NO

28) Please provide the constant utilized to determine or calculate the allowable off-sets for amounts that may be claimed as in-kind.

n/a

29) Does the proposed program allow for pass through funding requiring services from sub-grantees or private contracts to accomplish its intended purpose?  YES  NO

30) Does the program require the grantee to negotiate an indirect cost plan?  
 YES (please provide Negotiated Indirect Cost Rate percentage \_\_\_\_\_ %)  
 NO

31) Has the grantee estimated the indirect cost within the proposed grant budget?  
 YES  NO

SUBMITTED AND APPROVED BY:

Signature of Authorized Representative:

Paul C Bassler

Name of Authorized Representative:

PAUL C. BASSLER

Position/Title of Authorized Representative:

Director, Dept. of Agriculture

Date:

\_\_\_\_\_

**BROWN TREESNAKE RESEARCH & CONTROL PROGRAM**  
**Aquatic & Wildlife Resources Division**  
**Department of Agriculture**  
**Government of Guam**

**SUMMARY**

The main focus of the Guam Department of Agriculture's Division of Aquatic and Wildlife Resources (DAWR) Brown Treesnake Research and Control Program is to control brown treesnakes (BTS) in support of endangered species recovery. Other aims of the program involve research of management techniques, monitoring of brown treesnake prey items and other invasive species, as well as public education regarding the program.

**BACKGROUND**

On Guam, predation by the introduced brown treesnake (*Boiga irregularis*; BTS) has been implicated in the extirpation of native forest birds, as well as the decline of several other types of native wildlife. To reduce the threat of BTS spreading to other Pacific islands and to minimize further effects on native Guam wildlife, the United States Department of Interior, Office of Insular Affairs, began funding Guam BTS research and control in 1990.

The Guam BTS programs focus on reducing snake populations in specific areas, such as outbound cargo storage, electrical substations, and designated habitats for the reestablishment of endangered species. DAWR BTS research and control projects have included the creation, testing, and installation of barriers for use on nesting trees of native forest birds and the use of wide-area trapping and barriers to create snake-reduced environments to facilitate reintroduction of endangered native species into the wild.

**PERSONNEL**

The DAWR BTS Control Project staff consists of two Wildlife Technician Is, one Wildlife Technician II, one Wildlife Biologist I, one Wildlife Biologist II, and two Wildlife Biologist IIIs.

**PUBLIC OUTREACH AND EDUCATION**

DAWR BTS outreach and education efforts aim to provide information to the public regarding BTS research and control on Guam. The outreach activities include distribution of BTS brochures; response to BTS inquiries from the public; aid in snake removal from homes and businesses; presentations to primary, secondary, and university classes; and participation in events such as the University of Guam's Charter Day by providing displays (posters, preserved specimens, and live animals) and staff to answer questions.

In addition, snake traps are distributed to the public on request. A brochure outlining proper trapping procedures, including tips on placement and the use of attractants is provided to each customer.

Greenhouse frogs (*Eleutherodactylus planirostris*) were discovered on Guam in 2003. Subsequent surveys located two individual male coqui frogs (*E. coqui*) on Guam in February 2004; none have since been discovered. A media campaign entitled "Listen Up Guam!" was launched on 30 March 2005, alerting the public to the problems *E. coqui* may cause, and imploring them to contact DAWR on seeing or hearing a frog. The centerpiece of the campaign is its hotline: 687-FROG, sponsored by GUAMCELL Communications. The campaign has also included print ads in Marine Drive Magazine and the Pacific Daily News, posters given to government agencies, businesses, NGOs, and mayors' offices, magnets, t-shirts, and bumper stickers distributed to the public, and a radio jingle.

### **SNAKE TRAPPING EFFORTS**

**Northwest Field (Inside Area 50):** Area 50 is a 24-hectare area of limestone forest located in Northwest Field (an abandoned airfield) on Andersen Air Force Base (AAFB). In early 1997, Area 50 was selected as a release site for captive-bred Guam rails (*Gallirallus owstoni*). In preparation for release of the birds, snake trapping and current barrier technologies were used to control the BTS population. Since May 1997, various trapping strategies have been employed to reduce the snake population within Area 50 and, in August 1998, the chain-link fence surrounding the area was fitted with a wire-mesh snake barrier. The barrier was destroyed in December 2002 by typhoon Pongsona. Trapping was discontinued in April 2004, and reinitiated on 26 June 2006.

**MSA Perimeter-trapping of Forest Blocks:** The MSA was chosen for wide-area snake control because it contained the remaining Guam population of the Mariana crow (*Corvus kubaryi*) and good forest habitat for crows translocated from Rota. The forested habitat is divided by a system of tarmac roads. The roads provide easy access to perimeter-trapped blocks of forest within the area. DAWR's perimeter trapping efforts began in 1996 and are concentrated in the northern blocks of the MSA. Trap placement is complemented by USDA Wildlife Services' (WS) MSA area-wide snake control project in the southern blocks of the MSA.

**MSA Mariana Crow Hack Sites:** In addition to perimeter trapping efforts, 25-trap interior grids are set in specific sites chosen for Mariana crow releases. These interior grids are arranged in five transects of five traps, covering one hectare each. The first 25-trap grid was established in November 1998; the second was activated in April 2000. One grid was deactivated on 8 March 2001 and has not been reopened.

**Mariana Crow Nest Sites:** Active Mariana crow nests are protected from BTS by placing electrified snake barriers around the trunks of nest trees. When a nest is located, a barrier is installed, the canopy of the tree is visually inspected for BTS, and the adjacent trees are trimmed to eliminate snake access. Traps are also set in the adjacent area. The first Mariana crow successfully fledged from a protected nest in 1991.

**Captive Breeding Facility (Mangilao):** The snake traps on the fence surrounding DAWR's endangered species captive breeding facility in Mangilao have been active since December 1999; intermittent trapping efforts have occurred since October 1996.

**Cocos Island:** Cocos Island is a 33.6-hectare atoll off the southern coast of Guam that has viable populations of native birds and lizards no longer occurring on Guam. In response to a snake sighting there, 128 snake traps were activated from 23 May until 20 August 2001. No snakes were captured. Nine traps remain open to monitor for snakes.

**Cocos Island Resort Pier:** Six traps were placed at the Cocos Island Resort dock area on 4 September 2001 to reduce the probability of snakes moving to Cocos Island from Guam via boats or the Cocos Island Resort barge.

### **BTS PREY INITIATIVES**

In response to discoveries of greenhouse frogs (*Eleutherodactylus planirostris*) and coqui frogs (*E. coqui*) on Guam in 2003 and 2004, respectively, DAWR initiated a survey of plant nurseries and other areas prone to infestation to delineate the extent of the frogs' range. Initial surveys for greenhouse frogs indicated that there were at least two established populations (one in Tumon and one in Dededo) and two incipient populations as well (both in Barrigada). The surveys have uncovered frogs in Manenggon Hills, Mangilao, Asan, Dededo, Piti, Yigo, Agaña Heights, and Sinajaña and have confirmed the further expansion of populations in Dededo and Tumon.

### **INVASIVE SPECIES**

DAWR participates in the Pacific Invasives Learning Network (PILN). The network provides a forum for invasive species discussions, opportunities to participate in workshops, and staff development in invasive species management.

GOVERNMENT OF GUAM AQUATIC & WILDLIFE RESOURCES  
 BROWN TREESNAKE CONTROL PROJECT  
 FY08 Budget Proposal

PERSONNEL	SALARY (111)	BENEFITS (113)	S + B	FY08
1 Biologist III (DV)	42,779	11,495	54,274	\$54,274
1 Biologist III (CC)	32,263	12,875	45,138	\$45,138
1 Biologist II (PP)	35,802	8,293	44,095	\$44,095
1 Biologist I/II (TBA)	27,738	8,641	36,379	\$36,379
1 Technician II	31,549	12,380	43,929	\$43,929
2 Technician I	57,760	21,105	78,865	\$78,865
Chief DAWR (10%)	5,347	1,321	6,668	\$6,668
Assistant Chief (10%)	4,193	1,943	6,136	\$6,136
Administrative Officer (10%)	4,117	1,068	5,185	\$5,185
Clerk Typist III (10%)	2,542	1,081	3,623	\$3,623
Clerk Typist I (10%)	1,658	2,544	4,202	\$4,202
Administrative aide (20%)	3,527	1,828	5,355	\$5,355
Subtotals	249,275	84,574	333,849	\$333,849

**TRAVEL (220)**

- BTS Technical Committee Mtg (2 people - Hawaii March 08)
- BTS Technical Committee Mtg (Nov 07 Saipan - 2 people)
- SS Saipan/Paul Basler to DC? or other conference

	\$7,000
	\$2,200
	\$3,500

**CONTRACTUAL (230)** (Shipping, repair, installation & contract services)

- Telephone
- Computer maintenance
- Vehicle maintenance
- Coqui Awareness materials (vehicle painted, flyer printed, t-shirts)
- Bobcat rental for spreading gravel
- A/C repair
- Communication one-year contract & 4 radios

	\$1,000
	\$500
	\$5,000
	\$500
	\$200
	\$3,500

**SUPPLIES (240)**

Snake traps (USDA/WS)	100 @ \$80	\$8,000
Trap components (shades, rivets, cord, clips)		\$500
Hardware Supplies		\$3,000
Protective clothing/gear		\$1,000
Fuel (4 vehicles)		\$5,000
Mouse purchase		\$12,000
Mouse care (includes dog food (\$250)+feed (\$2K)+ potatoes (\$10K) bedding \$500)		\$13,000
Office supplies		\$500
Water		\$500
Wax		\$4,000
Groceries		\$300

**EQUIPMENT (250)**

Display cages		\$1,000
telemetry radios		\$1,000
software		\$2,000

**CAPITAL (450)**

Storage container		\$10,000
-------------------	--	----------

**SUBTOTAL**

\$419,049

**TOTAL AMOUNT REQUESTED**

\* Proposed FY08 needs  
\* Other(PR \$16K), (ANS \$11K), (SWG \$10K), (SHA \$15  
\* FY08 grant needs  
\*FY07 remaining \$

\$367,049  
\$56,857  
**\$310,192**

**FY08 DAWR BTS Projects:**

- MSA & Cocos Island operational BTS trapping (~800 traps)
- MSA Crow barrier installation
- Cocos Island Guam Rail Project Coordination
  - Bio-security Awareness Plan (Rare Campaign)
  - Safe Harbor MOU & Agreement
- Technical Assistance & operational trapping
  - AAFB Liason - Area 50/ MSA
  - Swiftlet Translocation planning
- BTS trap strategy testing
- PNG project proposal
- BTS trapping at Tarague Basin