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APPLICATION OF A COMPUTERIZED GENERAL PURPOSE INFORMATION MANAG--ETC(U)
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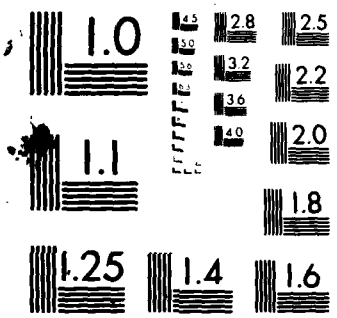

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Report Number 1

APPLICATION OF A COMPUTERIZED GENERAL PURPOSE INFORMATION MANAGEMENT SYSTEM (SELGEM) TO MEDICALLY IMPORTANT ARTHROPODS (DIPTERA: CULICIDAE)

Annual Report

Terry L. Erwin

June 1980

For the period 1 September 1979 to 30 May 1980

supported by

U. S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND

Fort Detrick, Frederick, MD 21701

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Washington, DC 20560

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The Mosquito Information Management Project was initiated in 1979 for the purpose of developing a computer-based systematic and ecological master file (data bank) of the National Museum Mosquito Collection housed in the Smithsonian Institution. The approximately 500,000 specimens with associated data constitute the best mosquito collection in the world. The data management system SELGEM (SELf-GEnerating Master) was adapted to meet the needs of the project.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

A new mosquito collection information format has been developed, and programmed for ENTREX (data input hardware-software system) and the Honeywell 6620 computer. ENTREX indices were created for collectors, depositories and countries to permit use of abbreviations in collection records. Five subprograms were written to test the capability of SELGEM in addressing specialized questions to ensure its competence in handling hierarchically arranged data. The computer program, MILREF, which permits conversion of military grid reference coordinates to geographical coordinates (latitude-longitude), was obtained from the Defense Mapping Agency (DMA), making it possible to computer generate distribution maps with either of the above type of coordinates. All available medium and large scale maps (over 2000), and gazeteers were obtained for Middle and South America from the DMA. The following collection records were submitted to the computer master file via ENTREX: (1) 61 collections containing about 3600 specimens from Ecuador and (2) 1100 collections for 15 of the 43 Middle and South American countries concerning the Albimanus Section of Anopheles (Nyssorhynchus) (Faran, 1980).

SUMMARY

The Mosquito Information Management Project was initiated in 1979 for the purpose of developing a computer-based systematic and ecological master file (data bank) of the National Museum Mosquito Collection housed in the Smithsonian Institution. The approximately 500,000 specimens with associated data constitute the best mosquito collection in the world. The data management system SELGEM (SELf-GEnerating Master) was adapted to meet the needs of the project.

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FORWARD

Citation of trade names in this report does not constitute an official endorsement or approval of the use of such commercial items.

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Availability Codes
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INTRODUCTION

The Mosquito Information Management Project is a definitive study that will result in the development of a computer-based systematic and ecological master file (data bank) of the United States National Museum Mosquito Collection, the largest and best such collection in the world. The master file will: (1) provide important, easily accessible, coordinated systematic, ecologic, and vector data to the military, public health organizations and other scientific and environmental agencies; (2) enhance and support research conducted by Department of Entomology, AFRIMS Medical Research Laboratory, Thailand, U.S. Army Medical Research Unit Brasilia (USAMRU), and the Medical Entomology Project (MEP); (3) provide knowledge of gaps in the collection and allow new collection strategies; (4) alleviate managerial problems by providing a timely and cost-efficient collection inventory; and (5) serve as a model for data capture involving mosquito biology throughout the world.

The Mosquito Information Management Project works in close association with the Department of Entomology, Walter Reed Army Institute of Research and the Medical Entomology Project, Smithsonian Institution, and is designed to be responsive to each of their needs.

REVIEW OF PROGRESS FOR THE PERIOD

1 September 1979 to 31 May 1980

I. Equipment and Personnel

A. Museum technician, Charlotte Burnett, was hired and she began work on 1 September 1979.

B. The following equipment was ordered and received: Hazeltine 1510 CRT terminal; Anadex Printer, and; Techtran 816 datacassette.

II. Development of SELGEM Master File and Querying Capabilities

A. Collection Form (Appendix 1) - A new collection information form was designed to assist in data entry and expand retrieval capabilities. This new form has combined features of the forms of the project Mosquitoes of Middle America (MOMA) and the Medical Entomology Project (MEP). In addition, this form allows gathering of data on the (1) medical importance of each species, (2) museum data, (3) name of individual who determined species, (4) synonyms, (5) important reference(s), (6) type-data (if collection contains types) and (7) species code (explained in 1980 research proposal). These forms have been adopted by MEP and were field tested January-February 1980, in South Africa by Dr. Y.-M. Huang.

B. SELGEM Master File and Data Entry

1. SELGEM Program - A custom auxillary program was designed and written to handle the hierarchically arranged data included in the new collection information form. In a hierarchical file such as this, data is arranged in a pyramid fashion, that is, for any one particular category within a record there may be several, independent subcategories. In order to gain maximal

accessibility to the information stored in this kind of file the computer must be able to search and associate data stored among the many records, and also the data in the different subcategories within a single record.

2. ENTREX Program and Files - The format of the new collection record was programmed into the hardware-software system, ENTREX, which greatly increases efficiency of data entry (Appendix 2 and see methods in 1980 proposal). ENTREX indices were created for collectors, depositories and countries to permit use of abbreviations in the collection records.

3. Collection Records in Master File

   a) Ecuador File - 61 collection records concerning about 3600 specimens were submitted to the computer via ENTREX as part of an initial test of SELGEM's capability (see 4, below).

   b) Nyssorhynchus collection - 1100 collection records, with associated species, for 15 of the 43 Middle and South American countries for the Albimanus section of Nyssorhynchus (Faran, 1980) have been submitted to computer.

4. SELGEM Subprograms - Five computer subprograms have been developed to test the ability of SELGEM in addressing specialized questions. The SELGEM system was tested with the Ecuador file, before building other files, to ensure that it was capable of associating data in a hierarchical fashion. To test this the following questions were presented to SELGEM (answers in Appendix 3):

a) What species have been collected in association with Culex (Mel.) bastagarius in Ecuador?

b) Where has Anopheles (Nys.) trinkae been collected in Ecuador?

c) Has An. (Nys.) trinkae ever been collected in ground pools? Where?

d) How many larval-pupal-female and larval-pupal-male individual rearings of An. (Nys.) trinkae are from Ecuador?

e) What months of the year has An. (Nys.) rangeli been collected in Ecuador?

f) Has An. (Nys.) trinkae been collected above 250 M elevation in Ecuador? Where?

g) List the locality data, general environment, and immature habitats for all the collections which include An. (Nys.) trinkae from Ecuador.

h) Has An. (Nys.) trinkae been collected with An. (Nys.) rangeli in Ecuador? In what type of habitat?

5. Computer Conversion of Military Grid Reference Coordinates to Geographic Coordinates (latitude-longitude) -

A computer program, written in FORTRAN IV entitled MILREF, was obtained from the Defense Mapping Agency (DMA). MILREF converts military grid reference coordinates to geographic coordinates. Most of the locality data on the MOMA and MEP forms is recorded in military grid coordinates; however, the computerized plotter at the Smithsonian can only plot distribution maps with geographic coordinates. The acquisition of MILREF now permits the generation of extremely accurate computer-plotted, species distribution maps with locality data in either military grid reference

coordinates or geographic coordinates.

6. Maps - All available medium and large scale maps (over 2000), and gazeteers were obtained for Middle and South America from the DMA. These maps will be used to verify locality data recorded on the collection records.

7. Presentation at Annual Meeting of American Society of Tropical Medicine and Hygiene (ASTMH) - An abstract has been submitted to ASTMH for a paper on the Mosquito Information Management Project to be presented at the 1980 annual meeting scheduled 5-7 November.

VISITORS

Visitors to this project include Dr. Charles L. Bailey (WRAIR, Washington, D.C.), Dr. John N. Belkin (University of California, Los Angeles, CA), Dr. Theodore J. Crovello, (University of Notre Dame, Notre Dame, Indiana), Dr. Richard H. Foote (U.S.D.A., Washington, D.C.), Dr. Kenneth J. Linthicum (WRAIR, Washington, D.C.), Dr. L. P. Lounibos (Florida Medical Entomology Laboratory, Vero Beach, FL), Drs. Adel Merdan and Sherif El Said (Malaria Research Unit, Ain Shams University, (Cairo, Egypt), and Dr. David L. Vincent (U.S.D.A. Importation Project, Beltsville, MD).

Appendix 1

New Collection Form

SI-17
Rev. 6-12-

SMITHSONIAN INSTITUTION
MEDICAL ENTOMOLOGY PROJECT

Collection Form

LOCALITY

Country Code	Nearest Town	Elevation
Number	Specific Locality	Date
Country	Map Designation	Time
State, Province or Department	Grid Coordinates	Photo
Second Administrative Division	Latitude and Longitude	Collector

GENERAL ENVIRONMENT

1. Air temp
   a. Wet _____ °C
   b. Dry _____ °C
2. % RH _____
3. Water temp _____ °C
4. Wind _____ kph
   a. none
   b. light
   c. medium
   d. strong
   e. gale
5. Sky
   a. clear
   b. partially cloudy
   c. overcast
   d. fog
   e. mist
   f. light rain
   g. heavy rain
6. Annual rainfall _____ mm
7. Rainy season months
   JFMAMJJASONDJFM
8. Topography
   a. mountain
   b. hill
   c. valley
   d. plateau
   e. plain
9. Latitudinal regions
   a. subpolar
   b. boreal
   c. cool temperate
   d. warm temp/subtropical
   e. tropical
10. Altitudinal belt
    a. alpine
    b. subalpine
    c. montane
    d. lower montane
    e. near sea level
11. Life zone
    a. Holdridge _____
    b. other _____
12. Vegetation types
    a. gymnosperms
    b. angiosperms
       1. monocots
       2. dicots
    c. deciduous
    d. nondeciduous
    e. broad leafed
    f. needle leafed
    g. bryophytes
    h. fungi
    i. other
13. Woody plants _____
    a. height range
       0-2-8-15-30 m
    b. density
       1. 0 total absence
       2. 1 low
       3. 2 medium
       4. 3 high
14. Herbs and grasses _____
    a. height range
       0-0.5-1-2-5-8 m
    b. density
       1. 0
       2. 1
       3. 2
       4. 3
15. Epiphytes _____
    a. density
       1. 0
       2. 1
       3. 2
       4. 3
16. Edge effect, edge or interior of
    a. vegetation
    b. swamp
    c. road
    d. dike
    e. bank
    f. other _____
17. Water effect, shore or margin of
    a. sea
    b. lake
    c. stream
    d. river
    e. swamp
    f. salt marsh
    g. other _____
18. Human influence
    a. clearing
    b. grazing
    c. plantation
    d. cultivation
    e. domestic
    f. pollution
    g. other _____

HABITAT OF IMMATURES

1. Modifiers of breeding site
   a. large
   b. medium
   c. small
   d. natural
   e. artificial
   f. other _____
2. Breeding site
   a. pond _____
   b. lake _____
   c. ground pool _____
   d. flooded pool _____
   e. animal track _____
   f. anim. container _____
   g. swamp, marshy depression
   h. marsh
      1. fresh 2. tidal
   i. flooded forest
   j. seepage, spring
   k. well
   l. stream
      1. margin 2. tidal
      3. pool
   m. ditch, drain, canal
   n. pit
   o. fountain
   p. gutter
   q. road rut; wheel track
   r. crabhole _____
   s. rockhole _____
      1. volcanic
      2. coral
      3. boulder at stream margin
      4. seaside
   t. rockpool _____
   u. stumphole _____
   v. treehole _____
   w. bamboo
      1. cut or broken
      2. stump
      3. split
      4. uncut internode
   x. flower bract, spathe
   y. attached fruit, nut or pod _____
   z. leaf axil _____
      1. epiphytic
      2. terrestrial
   aa. pitcher plant _____
   bb. fallen plant part
      1. tree _____
      2. leaf _____
      3. frond _____
      4. spathe _____
      5. fruit _____
      6. nut _____
      7. rind _____
   cc. artif. container _____
   dd. trap, bamboo pot _____
   ee. other _____
3. Light
   a. deep shade
   b. partial shade
   c. full sun
4. Height of site above ground _____ m
5. Dist. collection from nearest home _____ m
6. Water
   a. permanence
      1. permanent
      2. semipermanent
      3. temporary
   b. movement
      1. stagnant
      2. slow
      3. moderate
      4. strong
   c. turbidity
      1. clear
      2. turbid _____
   d. color _____
   e. pH _____
   f. hardness _____
   g. salinity
      1. fresh
      2. brackish _____
      3. salty _____
   h. pollution
      1. anaerobic
      2. other _____
   i. bottom
      1. mud
      2. sand
      3. gravel
      4. rock
      5. organic matter
         a. plant _____
         b. animal _____
7. Collection method _____
8. Aquatic vegetation
   a. quantity
      1. none
      2. scarce
      3. some
      4. abundant
   b. location
      1. submerged _____
      2. floating _____
      3. emergent _____
   c. type
      1. grassy _____
      2. herbaceous _____
      3. woody _____
      4. algae
         a. green
         b. brown
         c. blue-green
         d. other _____
      5. other _____

HABITAT OF ADULTS

1. Specific site _____
2. Dist. collection from nearest home _____
3. Ht. above ground _____
4. Collection method
   a. light trap _____
   b. bait trap _____
   c. sweeping _____
   d. aspirator _____
   e. other _____
5. Behavior
   a. resting
      1. house
      2. animal shelter
      3. cave
      4. treehole
      5. vegetation
      6. other _____
   b. biting
      1. animal _____
      2. human _____
   c. landing
      1. animal _____
      2. human _____
   d. swarming _____
   e. mating _____
   f. flying _____
   g. attracted to _____
   h. other _____

REMARKS:

No. _____

MASS REARINGS

	Species	L	l	P	p	M	F	E	♂G	♀G	Det.	Medical Importance	Sps. Code	MUSEUM DATA: Depository	Original Depository	Next Sequential Depository	Synonyms	Bibliography
-1																		
-2																		
-3																		
-4																		
-5																		
-6																		
-7																		
-8																		
-9																		

INDIVIDUAL REARINGS ✓ present 0 lost + dead, preserved in alcohol

Ind	Species	p	M	F	G	Ind	Species	l	p	M	F	G	Ind	Species	l	p	M	F	G	Ind	Species	l	p	M	F	G
-100						-10							-40							-70						
-101						-11							-41							-71						
-102						-12							-42							-72						
-103						-13							-43							-73						
-104						-14							-44							-74						
-105						-15							-45							-75						
-106						-16							-46							-76						
-107						-17							-47							-77						
-108						-18							-48							-78						
-109						-19							-49							-79						
-110						-20							-50							-80						
-111						-21							-51							-81						
-112						-22							-52							-82						
-113						-23							-53							-83						
-114						-24							-54							-84						
-115						-25							-55							-85						
-116						-26							-56							-86						
-117						-27							-57							-87						
-118						-28							-58							-88						
-119						-29							-59							-89						
-120						-30							-60							-90						
-121						-31							-61							-91						
-122						-32							-62							-92						
-123						-33							-63							-93						
-124						-34							-64							-94						
-125						-35							-65							-95						
-126						-36							-66							-96						
-127						-37							-67							-97						
-128						-38							-68							-98						
-129						-39							-69							-99						

REMARKS

TYPE DATA

1. Species: _____
2. Kind of type(s), life stages, type numbers: _____
3. Method of preparation: _____
4. Type designator: _____
5. Date of designation: _____
6. Type name: _____
7. Original type name: _____
8. Type publication: _____

Appendix 2

ENTREX Format

LOC

ENTREX DATA ENTRY FORMAT

MOSQUITO S E L G E M PROJECT

LOCALITY

LOC CODE : ____
COUNTRY : _____
_
PROVINCE : _____
SEC ADM DIV: _____
NEAREST TWN: _____
SPEC LOC : _____
MAP DESIG : _____
GRID COORDN: _____
LAT-LONG : _____ ELEVATION: _____
DATE : __ ___ ____ TIME: _____ PHOTO: _____
COLLECTOR : _____

LOCN

LOCALITY NUMBER: _____

ENV

GENERAL ENVIRONMENT

AIR TEMP : _____ _____
REL HUMIDITY: _____
WATER TEMP : _____
WIND KPH : _____ WIND DESCR: _____
SKY DESCR : _____
ANNUAL RAIN : _____ RAINY MO. : _____
TOPOGRAPHY : _____
LAT. REGIONS: _____ ALT. BELTS : _____
LIFE ZONE
HOLDRIDGE : _____
OTHER : _____
VEG. TYPES
A THRU H : _____
OTHER : _____
WOODY PLANTS: _____
HT. RANGE : _____ DENSITY: _____
HRBS-GRASSES: _____
HT. RANGE : _____ DENSITY: _____
EPIPHYTES : _____ DENSITY: _____
EDGE EFFECT : _____
WATER EFFECT: _____
HUMAN INFLU : _____

HIM

HABIT OF IMMATURES

MODF BREED : _____

BREED SITE : _____

LIGHT : _____ HEIGHT ABOVE GRND: ____

WATER

PERMANENCE: _____ MOVEMENT: _____

TURBIDITY : _____ COLOR: _____ PH: ____ HARDNESS: _____

SALINITY : _____ POLLUTION: _____

BOTTOM : _____

COLL METHOD: _____

AQUATIC VEG

QUANTITY : _____ LOCATION: _____

TYPE : _____

ALGAE DSCR: _____

ALGAE, DEN: _____

HAD

HABIT OF ADULTS

SPEC SITE : _____ DIST COLL NEAREST HOME: _____
HT. ABOVE
GROUND : ____ COLLECTION METHOD: _____

BEHAVIOR
RESTING : _____ OTHER: _____
BITING : _____
LANDING : _____
SWARMING : _____
MATING : _____

GRMK

LOCALITY, GENERAL ENVIRONMENT, HABIT OF IMMATURES AND HABIT OF ADULTS

R E M A R K S

LINE 1 :_____

LINE 2 :_____

LINE 3 :_____

LINE 4 :_____

LINE 5 :_____

MASSR

MASS REARINGS

SPECIES : _ _____ DET: _____

STAGES L L P P M F E G

--- --- --- --- --- --- --- ---

MDL IMPOR : _____ SPEC CODE: ___

MUSEUM DATA..... DEPOSITORY ORIG DEPOSITORY NEXT SEQ DEPOSITORY

------ ------ ------

SYNONYMS : _____

BIBLIOG : _____

INDIVIDUAL REARINGS

IND	SPECIES.....	L	P	M	F	G
---	----------	-	-	-	-	-

MRMK

MASS AND INDIVIDUAL REARINGS

R E M A R K S

LINE 1 :_____

LINE 2 :_____

LINE 3 :_____

LINE 4 :_____

LINE 5 :_____

TDATA

T Y P E D A T A

1. SPECIES: _____

2. KIND OF TYPE(S), LIFE STAGES, TYPE NUMBERS: _____

3. METHOD OF PREPARATION: _____

4. TYPE DESIGNATOR: _____

5. DATE OF DESIGNATION: _____

6. TYPE NAME: _____

7. ORIGINAL TYPE NAME: _____

8. TYPE PUBLICATION: _____

Appendix 3

Sample Queries

BASTAGARIUS AND ASSOCIATED SPECIES
MASTER LIST

DATE: 02/07/60 PAGE NO: 1

What species have been collected in association with Cx. (Mel.) bastagarius in Ecuador?

```
SERIAL  CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000110  090   01          4
          136   01   SCRUB
          160   01   ALONG ROAD; NOT MAIN ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   POND; LAKE
          210   01   FULL SUN
          220   01   TEMPORARY
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN

00000120  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 001 *** *** *** *** *** ***
          640   01   M. E. FARAN

00000121  600   01   MR
          605   01   2 CX. (MEL.) BASTAGARIUS

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000220  090   01          6
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   STREAM POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          230   01   CLEAR
          250   01   FRESH
          280   01   SUBMERGED; FLOATING; EMERGENT
          285   01   GREEN
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000220  500   01   IR 100a AND 100b ENTERED AS 100 AND 101. IR 100b WITH 2 1.

00000230  600   01   MR
          605   01   1 CX. (MEL.) PILOSUS
          610   01   004 *** *** *** *** *** *** ***
          640   01   S. SIRIVANAKARN

00000231  600   01   MR
          605   01   2 CX. (MEL.) BASTAGARIUS

00000232  600   01   MR
          605   01   3 CX. (MEL.) SURSUMPTOR

00000233  600   01   MR
          605   01   4 AN. (NYS.) TRINKAE

00000280  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   20 KM N
          050   01   001000
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00000290  090   01           8
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 10-99 M
          200   01   LARGE
          205   01   POND
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   SLOW
          235   01   SLIGHTLY
          250   01   FRESH
          275   01   SUBMERGED; FLOATING; EMERGENT
          285   01   BROWN
          290   01   SCARCE
          500   01   IR 163a, b, AND c ENTERED IN MR.

00000300  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS
          610   01   004 001 *** 003 002 003 *** ***
          640   01   S. SIRIVANAKARN

00000322  600   01   MR
          605   01   5 AN. (NYS.) TRINKAE

00001090  005   01   ECU
          010   01   ECUADOR
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001090  015   01   PASTAZA
          025   01   PUYO
          030   01   39 KM N
          050   01   001750
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00001100  090   01          9
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   POND; LAKE; GROUND POOL
          210   01   PARTIAL SHADE
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 112a ENTERED AS 112.

00001110  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   *** 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00001120  600   01   MR
          605   01   2 CX. (MEL.) BASTAGARIUS
          610   01   003 *** *** *** *** *** *** ***
          640   01   S. SIRIVANAKARN

00001121  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00001122  600   01   MR
          605   01   4 WY. SPS.

00001123  600   01   MR
          605   01   5 CX. (CUX.) SPS.

00001124  600   01   MR
          605   01   6 UR. (URA.) SPS.

00001125  600   01   MR
          605   01   7 CX. (CUX.) SPS.

00001360  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001360  025   01   PUYO
          030   01   4 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001370  090   01          10
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          290   01   SCARCE
          500   01   IR 121a AND b ENTERED IN MR.

00001380  600   01   MR
          605   01   1 CX. (MEL.) PILOSUS
          610   01   *** 001 001 *** *** *** *** ***
          640   01   S. SIRIVANAKARN

00001390  600   01   MR
          605   01   2 CX. (MEL.) BASTAGARIUS
          610   01   *** 004 005 *** 001 001 *** ***
          640   01   S. SIRIVANAKARN

00001400  600   01   MR
          605   01   3
          610   01   004 *** *** *** *** *** *** ***

00001402  600   01   MR
          605   01   5 AN. (NYS.) RANGELI

00001360  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001680  090   01          11
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001680  200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   TWO WHOLE MOUNTED ADULTS INCLUDED IN MR 4.

00001690  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   002 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00001710  600   01   MR
          605   01   3 CX. (MEL.) PILOSUS
          610   01   *** 001 001 *** *** *** *** ***
          640   01   S. SIRIVANAKARN

00001720  600   01   MR
          605   01   4 CX. (MEL.) BASTAGARIUS
          610   01   001 001 *** *** *** *** *** ***
          640   01   S. SIRIVANAKARN

00001820  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   5 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001830  090   01          12
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; SLIGHTLY GREEN
          290   01   SCARCE
          500   01   TWO WHOLE MOUNTED ADULTS INCLUDED IN MR.
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001840  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS
          610   01   002 001 002 004 002 002 *** ***
          640   01   S. SIRIVANAKARN

00001980  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   5.3 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001990  090   01          13
          120   01   VALLEY
          136   01   SCRUB
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 10-99 M
          200   01   LARGE
          205   01   POND
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          400   01   2 LARGE GREEN PUPAE: 1 LARGE GREEN LARVA; ANOPHELES LARVA.
          500   01   ONE WHOLE MOUNTED ADULT INCLUDED IN MR.

00002000  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS
          610   01   001 002 001 001 *** *** *** ***
          640   01   S. SIRIVANAKARN

00001980  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   5.3 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002050  090   01          14
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....
00002050  210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          290   01   SCARCE
          500   01   IR 141 DAMAGED.
                02   IR 154a. c. AND e RECORDED IN MR 2.
                03   IR 154b AND d RECORDED IN MR 5 AND 6.

00002060  600   01   MR
          605   01   1 CX. (MEL.) PILOSUS
          610   01   001 *** *** *** *** *** *** ***
          640   01   S. SIRIVANAKARN

00002070  600   01   MR
          605   01   2  CX. (MEL.) BASTAGARIUS
          610   01   002 003 001 003 001 002 *** ***
          640   01   S. SIRIVANAKARN

00002083  600   01   MR
          605   01   8 CX. (CUX.) SPS.

00002084  600   01   MR
          605   01   5 AN. (NYS.) RANGELI
          610   01   *** 002 *** 001 *** 001 *** ***
          640   01   M. E. FARAN

00002085  600   01   MR
          605   01   6 CX. (MEL.) SPS.
          610   01   *** 002 *** 001 001 *** *** ***
          640   01   S. SIRIVANAKARN

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   16 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002840  090   01          15
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00002840  225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   IR 100a AND b ENTERED AS MR 1.

00002845  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS
          610   01   *** 002 *** 002 001 001 *** ***
          640   01   S. SIRIVANAKARN

00002846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00002847  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00003250  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   08 MAY 1977
          070   01   YIAU-MIN HUANG

00003770  090   01         18
          120   01   VALLEY
          160   01   ALONG ROAD
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL; POND-LIKE
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN

00003780  600   01   MR
          605   01   1 CX. (MEL.) PILOSUS
          610   01   *** 002 001 002 002 *** *** ***
          640   01   S. SIRIVANAKARN

00003801  600   01   MR
          605   01   4 AN. (NYS.) TRINKAE
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00003802  600   01   MR
          605   01   5 CX. (MEL.) BASTAGARIUS

00005180  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   12 KM W
          050   01   001250
          055   01   09 MAY 1977
          070   01   YIAU-MIN HUANG

00005190  090   01          23
          120   01   VALLEY
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00005195  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS

00005196  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00005450  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   40 KM NE
          050   01   000500
          055   01   11 MAY 1977
          070   01   YIAU-MIN HUANG

00005460  090   01          24
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   DISTANCE TO NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00005460  250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN

00005465  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS

00005466  600   01   MR
          605   01   2 CX. (CUX.) SPS.

00005467  600   01   MR
          605   01   3 UR. (URA.) SPS.

00005540  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   1.5 KM S
          050   01   000510
          055   01   13 MAY 1977
          070   01   YIAU-MIN HUANG

00005550  090   01          26
          120   01   VALLEY
          145   01   WATER HYACINTH; EICHORNIA
          200   01   MEDIUM
          205   01   POND; LAKE
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          500   01   IR 109a ENTERED AS 109.

00005555  600   01   MR
          605   01   1 AN. (NYS.) RANGELI
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00005556  600   01   MR
          605   01   2 CX. (MEL.) BASTAGARIUS

00005557  600   01   MR
          605   01   3 AN. (NYS.) TRIANNULATUS

00005558  600   01   MR
          605   01   4 CX. (MEL.) BATESI
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00005820  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   32 KM S
          050   01   000700
          055   01   13 MAY 1977
          070   01   YIAU-MIN HUANG

00005830  090   01          27
          120   01   VALLEY
          160   01   ALONG ROAD
          200   01   LARGE
          205   01   GROUND POOL; POND-LIKE GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT
          500   01   IR 105 RECORDED AS MR 1.

00005835  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS
          610   01   *** *** *** *** 001 001 *** ***
          640   01   S. SIRIVANAKARN

00005836  600   01   MR
          605   01   2 AN. (NYS.) RANGELI

00005837  600   01   MR
          605   01   3 CX. (MEL.) DUNNI

00006170  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          035   01   01 28 --S. 077 59W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00006180  090   01          28
          400   01   COL NO 28 IS A MIXED COLLECTION. NUMBER NOT CERTAIN BUT WITH
                02   DEFINITE ASSOCIATED SKINS. ACTUAL DATE LISTED IS 5-9 MAY 1977.

00006181  600   01   MR
          605   01   1 AN. (NYS.) TRIANNULATUS

00006182  600   01   MR
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SERIAL	CATEG	LINE	....2....V....3....V....4....V... 5....V....6....V....7....V....
00006182	605	01	2 CX. (MEL.) BASTAGARIUS
00006210	005	01	ECU
	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	1.5 KM S
	050	01	000891
	055	01	15 MAY 1977
	070	01	YIAU-MIN HUANG
00006220	090	01	29
	120	01	VALLEY
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	LARGE
	205	01	GROUND POOL
	220	01	TEMPORARY
	225	01	STAGNANT
	235	01	SLIGHTLY
	250	01	FRESH
	270	01	ABUNDANT
	275	01	SUBMERGED; EMERGENT
00006225	600	01	MR
	605	01	1 CX. (MEL.) PILOSUS
00006226	600	01	MR
	605	01	2 CX. (MEL.) BASTAGARIUS
00006227	600	01	MR
	605	01	3 AN. (NYS.) TRINKAE
00006830	005	01	ECU
	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	4.3 KM E
	050	01	001000
	055	01	17 MAY 1977
	070	01	YIAU-MIN HUANG
00006840	090	01	31
	120	01	VALLEY
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	SMALL
	205	01	GROUND POOL
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH

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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00006840  270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00006845  600   01   MR
          605   01   1 CX. (MEL.) PILOSUS

00006846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00006847  600   01   MR
          605   01   3 CX. (MEL.) BASTAGARIUS

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00007160  090   01          32
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   MEDIUM
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          500   01   IR 107 AND 107 ENTERED IN MR.

00007170  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   012 *** *** 002 002 *** *** ***
          640   01   M. E. FARAN

00007180  600   01   MR
          605   01   2 AN. (NYS.) RANGELI
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00007182  600   01   MR
          605   01   4 CX. (MEL.) BASTAGARIUS

00007183  600   01   MR
          605   01   5 CX. (MEL.) PILOSUS
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00007440  090   01          33
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 102 DAMAGED.

00007450  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00007460  600   01   MR
          605   01   2 CX. (MEL.) BASTAGARIUS
          610   01   *** 002 *** *** *** *** ***
          640   01   S. SIRIVANAKARN

00007461  600   01   MR
          605   01   3 CX. (MEL.) PILOSUS

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00009320  090   01          34
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
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SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00009320	200	01	SMALL: LONG
	205	01	GROUND POOL: WHEEL TRACK
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH
	270	01	SCARCE
	275	01	SUBMERGED; EMERGENT
00009325	600	01	MR
	605	01	1 CX. (MEL.) PILOSUS
00009326	600	01	MR
	605	01	2 CX. (MEL.) BASTAGARIUS
00009327	600	01	MR
	605	01	3 AN. (NYS.) RANGELI
00009328	600	01	MR
	605	01	4 AN. (NYS.) TRINKAE
00010180	005	01	ECU
	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	23 KM SE
	050	01	000770
	055	01	19 MAY 1977
	070	01	YIAU-MIN HUANG
00010190	090	01	35
	120	01	VALLEY
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	LARGE
	205	01	GROUND POOL
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	MUDDY
	250	01	FRESH
	270	01	SCARCE
	275	01	SUBMERGED; EMERGENT
00010191	600	01	MR
	605	01	1 CX. (MEL.) PILOSUS
00010192	600	01	MR
	605	01	2 CX. (MEL.) BASTAGARIUS
00010193	600	01	MR

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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....
00010193  605   01   3 AN. (NYS.) RANGELI

00010520  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59W
          050   01   000953
          055   01   15 MAY 1977
          070   01   YIAU-MIN HUANG

00010530  090   01          36

00010540  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS
          610   01   *** *** *** ***  1  *** *** ***
          640   01   S. SIRIVANAKARN

00012490  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   11.7 KM SW
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00012500  090   01          40
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00012510  600   01   MR
          605   01   1 CX. (MEL.) BATESI
          610   01   *** *** *** *** *** 001 *** ***
          640   01   S. SIRIVANAKARN

00012511  600   01   MR
          605   01   2 AN. (NYS.) RANGELI

00012512  600   01   MR
          605   01   3 UR. (URA.) SPS.
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00012513  600   01   MR
          605   01   4 CX. (MEL.) PILOSUS

00012514  600   01   MR
          605   01   5 AN. (NYS.) TRINKAE

00012515  600   01   MR
          605   01   6 CX. (CUX.) SPS.

00012516  600   01   MR
          605   01   7 CX. (MEL.) BASTAGARIUS

00012490  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   11.7 KM SW
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00013130  090   01         41
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   MEDIUM; LONG
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN

00013131  600   01   MR
          605   01   1 CX. (CUX.) SPS.

00013132  600   01   MR
          605   01   2 CX. (MEL.) PILOSUS

00013133  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00013134  600   01   MR
          605   01   4 CX. (MEL.) BASTAGARIUS

00013135  600   01   MR
          605   01   5 UR. (URA.) SPS.
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00013136  600   01   MR
          605   01   6 CX. (MEL.) BATESI

00013390  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   13 KM SW
          050   01   001000
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00013400  090   01          42
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00013401  600   01   MR
          605   01   1 CX. (CUX.) SPS.

00013402  600   01   MR
          605   01   2 PS. SPS.

00013403  600   01   MR
          605   01   3 CX. (MEL.) PILOSUS

00013404  600   01   MR
          605   01   4 CX. (MEL.) BASTAGARIUS

00013390  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   13 KM SW
          050   01   001000
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00013870  090   01          43
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00013870  200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN

00013871  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS

00013872  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00013990  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   1.5 KM S
          050   01   000510
          055   01   27 MAY 1977
          070   01   YIAU-MIN HUANG

00014000  090   01          44
          120   01   VALLEY
          145   01   WATER HYACINTH; EICHORNIA
          170   01   DISTANCE FROM NEAREST HOME 10-99 M
          200   01   MEDIUM
          205   01   POND; LAKE
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          280   01   WATER HYACINTH; EICHORNIA

00014010  600   01   MR
          605   01   1 CX. (MEL.) BASTAGARIUS
          610   01   *** *** *** *** 001 *** *** ***
          640   01   S. SIRIVANAKARN

00014011  600   01   MR
          605   01   2 CX. (MEL.) BATESI

00014012  600   01   MR
          605   01   3 AN. (NYS.) RANGELI
```

SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00014370	005	01	ECU
	010	01	ECUADOR
	015	01	NAPO
	025	01	TENA
	030	01	1 KM S
	050	01	000510
	055	01	28 MAY 1977
	070	01	YIAU-MIN HUANG
00014380	090	01	45
	120	01	VALLEY
	170	01	DISTANCE FROM NEAREST HOME 10-99 M
	200	01	SMALL
	205	01	POND; LAKE
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	235	01	COLORED
	250	01	FRESH
	270	01	SCARCE
	275	01	SUBMERGED; EMERGENT
00014381	600	01	MR
	605	01	1 CX. (MEL.) BASTAGARIUS
00014382	600	01	MR
	605	01	2 AN. (NYS.) RANGELI
00014383	600	01	MR
	605	01	3 CX. (MEL.) BATESI
00014384	600	01	MR
	605	01	4 TIPULIDAE
00014385	600	01	MR
	605	01	5 CX. (CUX.) SPS.

BASTAGARIUS AND ASSOCIATED SPECIES

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000853 - NUMBER OF RECORDS PRINTED = 0000155

NUMBER OF LINES PROCESSED = 0000853 - NUMBER OF RECORDS PROCESSED = 0000155

DATE: 02/11/80

LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR
MASTER LIST

PAGE NO: 1

List the locality data, general environment, and immature habitats for all the collections which include An. (Nys.) trinkae from Ecuador.

Where has Anopheles (Nys.) trinkae been collected in Ecuador? Plot on map.

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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000110  090   01          4
          136   01   SCRUB
          160   01   ALONG ROAD; NOT MAIN ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   POND; LAKE
          210   01   FULL SUN
          220   01   TEMPORARY
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN

00000120  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 001 *** *** *** *** *** ***
          640   01   M. E. FARAN

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000200  090   01          5
          136   01   SCRUB
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   STREAM POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          230   01   CLEAR
          250   01   FRESH
          270   01   SUBMERGED
          500   01   2 ANOPHELES LARVAE DIED.

00000210  600   01   MR
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LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR

DATE: 02/11/80 MASTER LIST PAGE NO: 2

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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000210  605   01   1 AN. (NYS.) TRINKAE
          610   01   002 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000220  090   01          6
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   STREAM POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          230   01   CLEAR
          250   01   FRESH
          280   01   SUBMERGED; FLOATING; EMERGENT
          285   01   GREEN
          500   01   IR 100a AND 100b ENTERED AS 100 AND 101. IR 100b WITH 2 I.

00000233  600   01   MR
          605   01   4 AN. (NYS.) TRINKAE

00000280  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   20 KM N
          050   01   001000
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00000290  090   01          8
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 10-99 M
          200   01   LARGE
          205   01   POND
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   SLOW
          235   01   SLIGHTLY
          250   01   FRESH
          275   01   SUBMERGED; FLOATING; EMERGENT
          285   01   BROWN
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000290  290   01   SCARCE
          500   01   IR 163a, b, AND c ENTERED IN MR.

00000322  600   01   MR
          605   01   5 AN. (NYS.) TRINKAE

00001090  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   39 KM N
          050   01   001750
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00001100  090   01          9
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   POND; LAKE; GROUND POOL
          210   01   PARTIAL SHADE
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 112a ENTERED AS 112.

00001110  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   *** 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00001360  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001680  090   01          11
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001680  210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   TWO WHOLE MOUNTED ADULTS INCLUDED IN MR 4.

00001690  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   002 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   16 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002840  090   01          15
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   IR 100a AND b ENTERED AS MR 1.

00002846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   16 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00002950  090   01          16
          120   01   VALLEY
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   TURBID; MUDDY
          250   01   FRESH
          270   01   SCARCE
          500   01   IR 105 WITH BROKEN VIAL FOR P.

00002956  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00003250  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   08 MAY 1977
          070   01   YIAU-MIN HUANG

00003260  090   01          17
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT

00003271  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00003250  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   08 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00003770  090   01          18
          120   01   VALLEY
          160   01   ALONG ROAD
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL; POND-LIKE
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          295   01   GREEN

00003801  600   01   MR
          605   01   4 AN. (NYS.) TRINKAE

00004940  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   31 KM W
          050   01   002500
          055   01   09 MAY 1977
          070   01   YIAU-MIN HUANG

00004950  090   01          20
          160   01   ALONG ROAD
          200   01   SMALL
          205   01   DITCH
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED: EMERGENT
          500   01   CHARLOTTE COULD NOT FIND SLIDES FOR MR 1.

00004960  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   003 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00005180  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   12 KM W
          050   01   001250
          055   01   09 MAY 1977
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00005180  070   01   YIAU-MIN HUANG

00005190  090   01          23
          120   01   VALLEY
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00005196  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00006210  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   15 MAY 1977
          070   01   YIAU-MIN HUANG

00006220  090   01          29
          120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   SLIGHTLY
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00006227  600   01   MR
          605   01   3 AN. (NYS.) TRINKAE

00006210  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   15 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00006530  090   01          30
          120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL; POND-LIKE GROUND POOL
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   SLIGHTLY
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00006540  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00006830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4.3 KM E
          050   01   001000
          055   01   17 MAY 1977
          070   01   YIAU-MIN HUANG

00006840  090   01          31
          120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00006846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000391
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00007160  090   01          32
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   MEDIUM
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          500   01   IR 107 AND 107 ENTERED IN MR.

00007170  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   012 *** *** 002 002 *** *** ***
          640   01   M. E. FARAN

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00007440  090   01          33
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 102 DAMAGED.

00007450  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00007150  005   01   ECU
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00007150  010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00009320  090   01          34
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00009328  600   01   MR
          605   01   4 AN. (NYS.) TRINKAE

00012490  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   11.7 KM SW
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00012500  090   01          40
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00012514  600   01   MR
          605   01   5 AN. (NYS.) TRINKAE
```

LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR
MASTER LIST

DATE: 02/11/80 PAGE NO: 11

SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00013390	005	01	ECU
	010	01	ECUADOR
	015	01	NAPO
	025	01	TENA
	030	01	13 KM SW
	050	01	001000
	055	01	25 MAY 1977
	070	01	YIAU-MIN HUANG
00013870	090	01	43
	120	01	VALLEY
	136	01	SCRUB
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	SMALL; LONG
	205	01	GROUND POOL; WHEEL TRACK
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH
	270	01	SCARCE
	275	01	SUBMERGED; EMERGENT
	285	01	GREEN
00013872	600	01	MR
	605	01	2 AN. (NYS.) TRINKAE

LOCALITY DATA ABOUT TRINXAE COLLECTED IN ECUADOR

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000477 - NUMBER OF RECORDS PRINTED = 0000060

NUMBER OF LINES PROCESSED = 0000477 - NUMBER OF RECORDS PROCESSED = 0000060

TRINKAE COLLECTED IN GROUND POOLS
MASTER LIST

DATE: 02/08/80 PAGE NO: 1

Has An. (Nys.) trinkae ever been collected in ground pools? Where?

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001090  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   39 KM N
          050   01   001750
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00001100  090   01          9
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   POND; LAKE; GROUND POOL
          210   01   PARTIAL SHADE
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 112a ENTERED AS 112.

00001110  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   *** 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00001360  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001680  090   01         11
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001680  250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   TWO WHOLE MOUNTED ADULTS INCLUDED IN MR 4.

00001690  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   002 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   16 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002840  090   01         15
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   IR 100a AND b ENTERED AS MR 1.

00002846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   16 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002950  090   01         16
          120   01   VALLEY
          165   01   STREAM
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00002950  170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   TURBID; MUDDY
          250   01   FRESH
          270   01   SCARCE
          500   01   IR 105 WITH BROKEN VIAL FOR P.

00002956  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00003250  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   08 MAY 1977
          070   01   YIAU-MIN HUANG

00003260  090   01          17
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT

00003271  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00003250  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   08 MAY 1977
          070   01   YIAU-MIN HUANG

00003770  090   01          18
          120   01   VALLEY
          160   01   ALONG ROAD
```

SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00003770	165	01	STREAM
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	LARGE
	205	01	GROUND POOL; POND-LIKE
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	235	01	COLORED
	250	01	FRESH
	275	01	SUBMERGED; EMERGENT
	285	01	GREEN
00003801	600	01	MR
	605	01	4 AN. (NYS.) TRINKAE
00005180	005	01	ECU
	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	12 KM W
	050	01	001250
	055	01	09 MAY 1977
	070	01	YIAU-MIN HUANG
00005190	090	01	23
	120	01	VALLEY
	165	01	STREAM
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	LARGE
	205	01	GROUND POOL
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH
	270	01	ABUNDANT
	275	01	SUBMERGED; EMERGENT
00005196	600	01	MR
	605	01	2 AN. (NYS.) TRINKAE
00006210	005	01	ECU
	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	1.5 KM S
	050	01	000891
	055	01	15 MAY 1977
	070	01	YIAU-MIN HUANG
00006220	090	01	29

TRINKAE COLLECTED IN GROUND POOLS
MASTER LIST

DATE: 02/08/80 PAGE NO: 5

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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00006220  120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   SLIGHTLY
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00006227  600   01   MR
          605   01   3 AN. (NYS.) TRINKAE

00006210  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   15 MAY 1977
          070   01   YIAU-MIN HUANG

00006530  090   01          30
          120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL; POND-LIKE GROUND POOL
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   SLIGHTLY
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00006540  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00006830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4.3 KM E
          050   01   001000
          055   01   17 MAY 1977
          070   01   YIAU-MIN HUANG

00006840  090   01          31
          120   01   VALLEY
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00006840  170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00006846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00007160  090   01          32
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   MEDIUM
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          500   01   IR 107 AND 107 ENTERED IN MR.

00007170  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   012 *** *** 002 002 *** *** ***
          640   01   M. E. FARAN

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00007440  090   01          33
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 102 DAMAGED.

00007450  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00009320  090   01          34
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00009328  600   01   MR
          605   01   4 AN. (NYS.) TRINKAE

00012490  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00012490  030   01   11.7 KM SW
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00012500  030   01          40
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00012514  600   01   MR
          605   01   5 AN. (NYS.) TRINKAE

00013390  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   13 KM SW
          050   01   001000
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00013870  090   01          43
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN

00013872  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE
```

TRINKAE COLLECTED IN GROUND POOLS

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000360 - NUMBER OF RECORDS PRINTED = 0000045

NUMBER OF LINES PROCESSED = 0000360 - NUMBER OF RECORDS PROCESSED = 0000045

How many larval-pupal-female and larval-pupal-male individual rearings are there of An. (Nys.) trinkae from Ecuador?

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000260  600   01   IR
          605   01   001 AN. (NYS.) TRINKAE
          610   01   X X X * X

00000980  600   01   IR
          605   01   001 AN. (NYS.) TRINKAE
          610   01   X X * X *

00000990  600   01   IR
          605   01   002 AN. (NYS.) TRINKAE
          610   01   X X X * X

00001340  600   01   IR
          605   01   009 AN. (NYS.) TRINKAE
          610   01   X X * X *

00001760  600   01   IR
          605   01   001 AN. (NYS.) TRINKAE
          610   01   X X * X *

00001800  600   01   IR
          605   01   003 AN. (NYS.) TRINKAE
          610   01   X X X * *

00002890  600   01   IR
          605   01   003 AN. (NYS.) TRINKAE
          610   01   X X X * X

00002920  600   01   IR
          605   01   006 AN. (NYS.) TRINKAE
          610   01   X X * X *

00003160  600   01   IR
          605   01   002 AN. (NYS.) TRINKAE
          610   01   X X X * X

00003170  600   01   IR
          605   01   003 AN. (NYS.) TRINKAE
          610   01   X X X * *

00003220  600   01   IR
          605   01   007 AN. (NYS.) TRINKAE
          610   01   X X * X *

00003420  600   01   IR
          605   01   001 AN. (NYS.) TRINKAE
          610   01   X X * X *

00003650  600   01   IR
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00003650  605   01   007 AN. (NYS.) TRINKAE
          610   01   X X * X *

00003750  600   01   IR
          605   01   010 AN. (NYS.) TRINKAE
          610   01   X X * X *

00004050  600   01   IR
          605   01   002 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006320  600   01   IR
          605   01   002 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006370  600   01   IR
          605   01   004 AN. (NYS.) TRINKAE
          610   01   X X X * X

00006410  600   01   IR
          605   01   006 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006450  600   01   IR
          605   01   007 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006470  600   01   IR
          605   01   009 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006490  600   01   IR
          605   01   011 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006500  600   01   IR
          605   01   012 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006510  600   01   IR
          605   01   013 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006520  600   01   IR
          605   01   014 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006650  600   01   IR
          605   01   001 AN. (NYS.) TRINKAE
          610   01   X X * X *
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00006720  600   01   IR
          605   01   004 AN. (NYS.) TRINKAE
          610   01   X X X * X

00006710  600   01   IR
          605   01   005 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006780  600   01   IR
          605   01   007 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006790  600   01   IR
          605   01   008 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006800  600   01   IR
          605   01   009 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006810  600   01   IR
          605   01   010 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006820  600   01   IR
          605   01   011 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006860  600   01   IR
          605   01   001 AN. (NYS.) TRINKAE
          610   01   X X X * *

00006910  600   01   IR
          605   01   002 AN. (NYS.) TRINKAE
          610   01   X X * X *

00006920  600   01   IR
          605   01   003 AN. (NYS.) TRINKAE
          610   01   X X * X *

00007020  600   01   IR
          605   01   008 AN. (NYS.) TRINKAE
          610   01   X X * X *

00007030  600   01   IR
          605   01   009 AN. (NYS.) TRINKAE
          610   01   X X X * *

00007120  600   01   IR
          605   01   013 AN. (NYS.) TRINKAE
          610   01   X X * X *
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00007260  600   01   IR
          605   01   001 AN. (NYS.) TRINKAE
          610   01   X X X * *

00007270  600   01   IR
          605   01   002 AN. (NYS.) TRINKAE
          610   01   X X X * *

00007290  600   01   IR
          605   01   003 AN. (NYS.) TRINKAE
          610   01   X X * X *

00007300  600   01   IR
          605   01   004 AN. (NYS.) TRINKAE
          610   01   X X X * *

00007310  600   01   IR
          605   01   005 AN. (NYS.) TRINKAE
          610   01   X X * X *

00007340  600   01   IR
          605   01   007 AN. (NYS.) TRINKAE
          610   01   X X X * *

00007370  600   01   IR
          605   01   111 AN. (NYS.) TRINKAE
          610   01   X X * X *

00007390  600   01   IR
          605   01   008 AN. (NYS.) TRINKAE
          610   01   X X X * *

00007400  600   01   IR
          605   01   009 AN. (NYS.) TRINKAE
          610   01   X X X * *

00007420  600   01   IR
          605   01   010 AN. (NYS.) TRINKAE
          610   01   X X X * *

00012750  600   01   IR
          605   01   003 AN. (NYS.) TRINKAE
          610   01   X X * X *

00012780  600   01   IR
          605   01   006 AN. (NYS.) TRINKAE
          610   01   X X * X *

00012790  600   01   IR
          605   01   007 AN. (NYS.) TRINKAE
          610   01   X X X * *
```

INDIVIDUAL REARINGS OF TRINKAE (L-P-F AND L-P-M)
MASTER LIST

DATE: 02/14/60

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....
00013110  600   01   IR
          605   01   011 AN. (NYS.) TRINKAE
          610   01   X X X * *
```

INDIVIDUAL REARINGS OF TRINKAE (L-P-F AND L-P-M)

SELGEN MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000156 - NUMBER OF RECORDS PRINTED = 0000052

NUMBER OF LINES PROCESSED = 0000156 - NUMBER OF RECORDS PROCESSED = 0000052

TOTAL L-P-F AND L-P-M
QUERY REPORT
02/12/80

SERIAL CATEG LINE TRN DATA----------

LARVAL-PUPAL-FEMALE 27.

LARVAL-PUPAL-MALE 25.

RECORDS READ - 000112

END OF SELEXT

MONTHS OF THE YEAR RANGELI WAS COLLECTED IN ECUADOR
MASTER LIST

DATE: 02/08/80 PAGE NO: 1

What months of the year has An. (Nys.) rangeli been collected in Ecuador?

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001090  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   39 KM N
          050   01   001750
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00001100  090   01          9
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   POND; LAKE; GROUND POOL
          210   01   PARTIAL SHADE
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 112a ENTERED AS 112.

00001121  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00001360  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001370  090   01         10
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001370  290   01   SCARCE
          500   01   IR 121a AND b ENTERED IN

00001402  600   01   MR
          605   01   5 AN. (NYS.) RANGELI

00001980  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   5.3 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002050  090   01          14
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          290   01   SCARCE
          500   01   IR 141 DAMAGED.
                02   IR 154a. c, AND e RECORDED IN MR 2.
                03   IR 154b AND d RECORDED IN MR 5 AND 6.

00002084  600   01   MR
          605   01   5 AN. (NYS.) RANGELI
          610   01   *** 002 *** 001 *** 001 *** ***
          640   01   M. E. FARAN

00002630  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   18 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002840  090   01          15
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00002840  200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   IR 100a AND b ENTERED AS MR 1.

00002847  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00005540  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   1.5 KM S
          050   01   000510
          055   01   13 MAY 1977
          070   01   YIAU-MIN HUANG

00005550  090   01          26
          120   01   VALLEY
          145   01   WATER HYACINTH: EICHORNIA
          200   01   MEDIUM
          205   01   POND; LAKE
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          500   01   IR 109a ENTERED AS 109.

00005555  600   01   MR
          605   01   1 AN. (NYS.) RANGELI
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00005820  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   32 KM S
          050   01   000700
          055   01   13 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00005830  090   01          27
          120   01  VALLEY
          160   01  ALONG ROAD
          200   01  LARGE
          205   01  GROUND POOL; POND-LIKE GROUND POOL
          210   01  FULL SUN
          220   01  TEMPORARY
          225   01  STAGNANT
          230   01  CLEAR
          250   01  FRESH
          270   01  SCARCE
          275   01  SUBMERGED; EMERGENT
          500   01  IR 105 RECORDED AS MR 1.

00005836  600   01  MR
          605   01  2 AN. (NYS.) RANGELI

00007150  005   01  ECU
          010   01  ECUADOR
          015   01  PASTAZA
          025   01  PUYO
          030   01  1.5 KM S
          050   01  000891
          055   01  19 MAY 1977
          070   01  YIAU-MIN HUANG

00007160  090   01          32
          120   01  VALLEY
          136   01  SCRUB
          170   01  DISTANCE FROM NEAREST HOME 100-999 M
          200   01  MEDIUM
          205   01  GROUND POOL
          210   01  FULL SUN
          220   01  PERMANENT
          225   01  STAGNANT
          230   01  CLEAR
          250   01  FRESH
          270   01  ABUNDANT
          275   01  SUBMERGED; EMERGENT
          500   01  IR 107 AND 107 ENTERED IN MR.

00007180  600   01  MR
          605   01  2 AN. (NYS.) RANGELI
          610   01  C01 *** *** *** *** *** *** ***
          640   01  M. E. FARAN

00007150  005   01  ECU
          010   01  ECUADOR
          015   01  PASTAZA
          025   01  PUYO
          030   01  1.5 KM S
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00007150  050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00009320  090   01          34
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00009327  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00010180  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   23 KM SE
          050   01   000770
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00010190  090   01          35
          120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   MUDDY
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00010193  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00010580  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   12.5 KM SE
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00010580  050   01   000400
          055   01   24 MAY 1977
          070   01   YIAU-MIN HUANG

00011120  090   01          38
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 10-99 M
          200   01   SMALL; LONG
          205   01   GROUND POOL
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          500   01   IR 155a. b. AND d RECORDED IN MR 1.

00011131  600   01   MR
          605   01   2 AN. (NYS.) RANGELI

00012490  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   11.7 KM SW
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00012500  090   01          40
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00012511  600   01   MR
          605   01   2 AN. (NYS.) RANGELI

00012490  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00012490  030   01   11.7 KM SW
          055   01   25 MAY 1977
          070   01   YIAU-MIN HUANG

00013130  090   01          41
          120   01   VALLEY
          130   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   MEDIUM; LONG
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN

00013133  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00013990  005   01   ECU
          010   01   ECUADOR
          015   01   NAPO
          025   01   TENA
          030   01   1.5 KM S
          050   01   000510
          055   01   27 MAY 1977
          070   01   YIAU-MIN HUANG

00014000  090   01          44
          120   01   VALLEY
          145   01   WATER HYACINTH; EICHORNIA
          170   01   DISTANCE FROM NEAREST HOME 10-99 M
          200   01   MEDIUM
          205   01   POND; LAKE
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          280   01   WATER HYACINTH; EICHORNIA

00014012  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00014370  005   01   ECU
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SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00014370	010	01	ECUADOR
	015	01	NAPO
	025	01	TENA
	030	01	1 KM S
	050	01	000510
	055	01	28 MAY 1977
	070	01	YIAU-MIN HUANG
00014380	090	01	45
	120	01	VALLEY
	170	01	DISTANCE FROM NEAREST HOME 10-99 M
	200	01	SMALL
	205	01	POND; LAKE
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	235	01	COLORED
	250	01	FRESH
	270	01	SCARCE
	275	01	SUBMERGED; EMERGENT
00014382	600	01	MR
	605	01	2 AN. (NYS.) RANGELI
00019200	005	01	ECU
	010	01	ECUADOR
	015	01	NAPO
	025	01	LIMONCOCHA
	055	01	08 JUN 1977
	070	01	YIAU-MIN HUANG
00019880	090	01	57
	120	01	VALLEY
	170	01	DISTANCE FROM NEAREST HOME 10-99 M
	200	01	LARGE; SHALLOW; POND-LIKE
	205	01	GROUND POOL
	210	01	PARTIAL SHADE
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH
	270	01	ABUNDANT
	275	01	SUBMERGED; EMERGENT
	500	01	IR 108a RECORDED AS MR 1.
00019890	600	01	MR
	605	01	1 AN. (NYS.) RANGELI
	610	01	*** 002 *** 001 001 *** *** ***
	640	01	M. E. FARAN

MONTHS OF THE YEAR RANGELI WAS COLLECTED IN ECUADOR

SELGEN MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000361 - NUMBER OF RECORDS PRINTED = 0000045

NUMBER OF LINES PROCESSED = 0000361 - NUMBER OF RECORDS PROCESSED = 0000045

TRINKAE COLLECTED ABOVE 250 M IN ECUADOR
MASTER LIST

DATE: 02/07/80 PAGE NO: 1

Has An. (Nys.) trinkae been collected above 250 M elevation in Ecuador? Where?

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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000110  090   01          4
          136   01   SCRUB
          160   01   ALONG ROAD; NOT MAIN ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   POND; LAKE
          210   01   FULL SUN
          220   01   TEMPORARY
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN

00000120  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 001 *** *** *** *** *** ***
          640   01   M. E. FARAN

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000200  090   01          5
          136   01   SCRUB
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   STREAM POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          230   01   CLEAR
          250   01   FRESH
          270   01   SUBMERGED
          500   01   2 ANOPHELES LARVAE DIED.

00000210  600   01   MR
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000210  605   01   1 AN. (NYS.) TRINKAE
          610   01   002 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00000010  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   05 MAY 1977
          070   01   YIAU-MIN HUANG

00000220  090   01          6
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   STREAM POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          230   01   CLEAR
          250   01   FRESH
          280   01   SUBMERGED; FLOATING; EMERGENT
          285   01   GREEN
          500   01   IR 100a AND 100b ENTERED AS 100 AND 101. IR 100b WITH 2 1.

00000233  600   01   MR
          605   01   4 AN. (NYS.) TRINKAE

00000280  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   20 KM N
          050   01   001000
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00000290  090   01          8
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 10-99 M
          200   01   LARGE
          205   01   POND
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   SLOW
          235   01   SLIGHTLY
          250   01   FRESH
          275   01   SUBMERGED; FLOATING; EMERGENT
          285   01   BROWN
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00000290  290   01   SCARCE
          500   01   IR 163a. b, AND c ENTERED IN MR.

00000322  600   01   MR
          605   01   5 AN. (NYS.) TRINKAE

00001090  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   39 KM N
          050   01   001750
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00001100  090   01            9
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   POND; LAKE; GROUND POOL
          210   01   PARTIAL SHADE
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 112a ENTERED AS 112.

00001110  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   *** 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00001360  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4 KM NE
          050   01   001250
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00001680  090   01           11
          120   01   VALLEY
          160   01   ALONG ROAD
          170   01   PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001680  210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   TWO WHOLE MOUNTED ADULTS INCLUDED IN MR 4.

00001690  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   002 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   16 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002840  090   01         15
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   IR 100a AND b ENTERED AS MR 1.

00002846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   16 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00002950  090   01          16
          120   01   VALLEY
          165   01   STREAM
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   TURBID: MUDDY
          250   01   FRESH
          270   01   SCARCE
          500   01   IR 105 WITH BROKEN VIAL FOR P.

00002956  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00003250  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   08 MAY 1977
          070   01   YIAU-MIN HUANG

00003260  090   01          17
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL; LONG
          205   01   GROUND POOL; WHEEL TRACK
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT

00003271  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00003250  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          045   01   01 28 --S. 077 59 --W
          050   01   000953
          055   01   08 MAY 1977
          070   01   YIAU-MIN HUANG
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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00003770  090   01          18
          120   01  VALLEY
          160   01  ALONG ROAD
          165   01  STREAM
          170   01  DISTANCE FROM NEAREST HOME 100-999 M
          200   01  LARGE
          205   01  GROUND POOL; POND-LIKE
          210   01  FULL SUN
          220   01  TEMPORARY
          225   01  STAGNANT
          235   01  COLORED
          250   01  FRESH
          275   01  SUBMERGED; EMERGENT
          285   01  GREEN

00003801  600   01  MR
          605   01  4 AN. (NYS.) TRINKAE

00004940  005   01  ECU
          010   01  ECUADOR
          015   01  PASTAZA
          025   01  PUYO
          030   01  31 KM W
          050   01  002500
          055   01  09 MAY 1977
          070   01  YIAU-MIN HUANG

00004950  090   01          20
          160   01  ALONG ROAD
          200   01  SMALL
          205   01  DITCH
          220   01  TEMPORARY
          225   01  STAGNANT
          230   01  CLEAR
          250   01  FRESH
          270   01  SCARCE
          275   01  SUBMERGED: EMERGENT
          500   01  CHARLOTTE COULD NOT FIND SLIDES FOR MR 1.

00004960  600   01  MR
          605   01  1 AN. (NYS.) TRINKAE
          610   01  003 *** *** *** *** *** *** ***
          640   01  M. E. FARAN

00005180  005   01  ECU
          010   01  ECUADOR
          015   01  PASTAZA
          025   01  PUYO
          030   01  12 KM W
          050   01  001250
          055   01  09 MAY 1977
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SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00005180	070	01	YIAU-MIN HUANG
00005190	090	01	23
	120	01	VALLEY
	165	01	STREAM
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	LARGE
	205	01	GROUND POOL
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH
	270	01	ABUNDANT
	275	01	SUBMERGED; EMERGENT
00005196	600	01	MR
	605	01	2 AN. (NYS.) TRINKAE
00006210	005	01	ECU
	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	1.5 KM S
	050	01	000891
	055	01	15 MAY 1977
	070	01	YIAU-MIN HUANG
00006220	090	01	29
	120	01	VALLEY
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	LARGE
	205	01	GROUND POOL
	220	01	TEMPORARY
	225	01	STAGNANT
	235	01	SLIGHTLY
	250	01	FRESH
	270	01	ABUNDANT
	275	01	SUBMERGED; EMERGENT
00006227	600	01	MR
	605	01	3 AN. (NYS.) TRINKAE
00006210	005	01	ECU
	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	1.5 KM S
	050	01	000891
	055	01	15 MAY 1977
	070	01	YIAU-MIN HUANG

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00006530  090   01          30
          120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   LARGE
          205   01   GROUND POOL; POND-LIKE GROUND POOL
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   SLIGHTLY
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT

00006540  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00006830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   4.3 KM E
          050   01   001000
          055   01   17 MAY 1977
          070   01   YIAU-MIN HUANG

00006840  090   01          31
          120   01   VALLEY
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   TEMPORARY
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   SCARCE
          275   01   SUBMERGED; EMERGENT

00006846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG
```

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00007160  090   01          32
          120   01  VALLEY
          136   01  SCRUB
          170   01  DISTANCE FROM NEAREST HOME 100-999 M
          200   01  MEDIUM
          205   01  GROUND POOL
          210   01  FULL SUN
          220   01  PERMANENT
          225   01  STAGNANT
          230   01  CLEAR
          250   01  FRESH
          270   01  ABUNDANT
          275   01  SUBMERGED; EMERGENT
          500   01  IR 107 AND 107 ENTERED IN MR.

00007170  600   01  MR
          605   01  1 AN. (NYS.) TRINKAE
          610   01  012 *** *** 002 002 *** *** ***
          640   01  M. E. FARAN

00007150  005   01  ECU
          010   01  ECUADOR
          015   01  PASTAZA
          025   01  PUYO
          030   01  1.5 KM S
          050   01  000891
          055   01  19 MAY 1977
          070   01  YIAU-MIN HUANG

00007440  090   01          33
          120   01  VALLEY
          136   01  SCRUB
          170   01  DISTANCE FROM NEAREST HOME 100-999 M
          200   01  SMALL; LONG
          205   01  GROUND POOL; WHEEL TRACK
          210   01  FULL SUN
          220   01  TEMPORARY
          225   01  STAGNANT
          230   01  CLEAR
          250   01  FRESH
          270   01  SCARCE
          275   01  SUBMERGED; EMERGENT
          285   01  GREEN
          500   01  IR 102 DAMAGED.

00007450  600   01  MR
          605   01  1 AN. (NYS.) TRINKAE
          610   01  001 *** *** *** *** *** *** ***
          640   01  M. E. FARAN

00007150  005   01  ECU
```

SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00007150	010	01	ECUADOR
	015	01	PASTAZA
	025	01	PUYO
	030	01	1.5 KM S
	050	01	000891
	055	01	19 MAY 1977
	070	01	YIAU-MIN HUANG
00009320	090	01	34
	120	01	VALLEY
	136	01	SCRUB
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	SMALL: LONG
	205	01	GROUND POOL; WHEEL TRACK
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH
	270	01	SCARCE
	275	01	SUBMERGED; EMERGENT
00009328	600	01	MR
	605	01	4 AN. (NYS.) TRINKAE
00013390	005	01	ECU
	010	01	ECUADOR
	015	01	NAPO
	025	01	TENA
	030	01	13 KM SW
	050	01	001000
	055	01	25 MAY 1977
	070	01	YIAU-MIN HUANG
00013870	090	01	43
	120	01	VALLEY
	136	01	SCRUB
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	SMALL: LONG
	205	01	GROUND POOL; WHEEL TRACK
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	230	01	CLEAR
	250	01	FRESH
	270	01	SCARCE
	275	01	SUBMERGED; EMERGENT
	285	01	GREEN
00013872	600	01	MR
	605	01	2 AN. (NYS.) TRINKAE

TRINKAE COLLECTED ABOVE 250 M IN ECUADOR

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000454 - NUMBER OF RECORDS PRINTED = 0000057

NUMBER OF LINES PROCESSED = 0000454 - NUMBER OF RECORDS PROCESSED = 0000057

Has An. (Nys.) trinkae been collected with An. (Nys.) rangeli in Ecuador? In what type of habitat?

```
SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....

00001090  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   39 KM N
          050   01   001750
          055   01   06 MAY 1977
          070   01   YIAU-MIN HUANG

00001100  090   01          9
          120   01   VALLEY
          136   01   SCRUB
          160   01   ALONG ROAD
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   POND; LAKE; GROUND POOL
          210   01   PARTIAL SHADE
          220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN
          500   01   IR 112a ENTERED AS 112.

00001121  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00001110  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   *** 001 001 *** *** *** *** ***
          640   01   M. E. FARAN

00002830  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   18 KM NE
          050   01   001000
          055   01   07 MAY 1977
          070   01   YIAU-MIN HUANG

00002840  090   01          15
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   SMALL
          205   01   GROUND POOL
          210   01   FULL SUN
```

AD-A111 365 SMITHSONIAN INSTITUTION WASHINGTON DC F/G 6/3
APPLICATION OF A COMPUTERIZED GENERAL PURPOSE INFORMATION MANAG--ETC(U)
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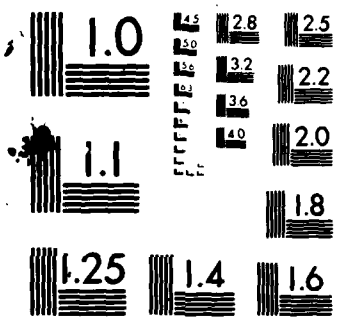

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

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SERIAL   CATEG LINE  ....2....V....3....V....4....V....5....V....6....V....7....V....
00002840  220   01   TEMPORARY
          225   01   STAGNANT
          235   01   COLORED
          250   01   FRESH
          275   01   SUBMERGED; EMERGENT
          285   01   GREEN; BROWN
          290   01   SCARCE
          500   01   IR 100a AND b ENTERED AS MR 1.

00002847  600   01   MR
          605   01   3 AN. (NYS.) RANGELI

00002846  600   01   MR
          605   01   2 AN. (NYS.) TRINKAE

00007150  005   01   ECU
          010   01   ECUADOR
          015   01   PASTAZA
          025   01   PUYO
          030   01   1.5 KM S
          050   01   000891
          055   01   19 MAY 1977
          070   01   YIAU-MIN HUANG

00007160  090   01          32
          120   01   VALLEY
          136   01   SCRUB
          170   01   DISTANCE FROM NEAREST HOME 100-999 M
          200   01   MEDIUM
          205   01   GROUND POOL
          210   01   FULL SUN
          220   01   PERMANENT
          225   01   STAGNANT
          230   01   CLEAR
          250   01   FRESH
          270   01   ABUNDANT
          275   01   SUBMERGED; EMERGENT
          500   01   IR 107 AND 107 ENTERED IN MR.

00007180  600   01   MR
          605   01   2 AN. (NYS.) RANGELI
          610   01   001 *** *** *** *** *** *** ***
          640   01   M. E. FARAN

00007170  600   01   MR
          605   01   1 AN. (NYS.) TRINKAE
          610   01   012 *** *** 002 002 *** *** ***
          640   01   M. E. FARAN

00012490  005   01   ECU
          010   01   ECUADOR
```

DATE: 02/07/80

TRINKAE WITH RANGELI HABIT LIST
MASTER LIST

SERIAL	CATEG	LINE	....2....V....3....V....4....V....5....V....6....V....7....V....
00012490	015	01	NAPO
	025	01	TENA
	030	01	11.7 KM SW
	055	01	25 MAY 1977
	070	01	YIAU-MIN HUANG
00012500	090	01	40
	120	01	VALLEY
	136	01	SCRUB
	160	01	ALONG ROAD
	170	01	DISTANCE FROM NEAREST HOME 100-999 M
	200	01	LARGE
	205	01	GROUND POOL
	210	01	FULL SUN
	220	01	TEMPORARY
	225	01	STAGNANT
	235	01	COLORED
	250	01	FRESH
	270	01	ABUNDANT
	275	01	SUBMERGED; EMERGENT
00012511	600	01	MR
	605	01	2 AN. (NYS.) RANGELI
00012514	600	01	MR
	605	01	5 AN. (NYS.) TRINKAE

TRINKAE WITH RANGELI HABIT LIST

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000111 - NUMBER OF RECORDS PRINTED = 0000016

NUMBER OF LINES PROCESSED = 0000111 - NUMBER OF RECORDS PROCESSED = 0000016

How many individually reared and mass reared specimens are there from Ecuador?

MOSQUITO ECUADOR FILE SUMMATION

a. Individual rearings:

1.)	I	267
2.)	p	790
3.)	M	877
4.)	F	941
5.)	G	86

b. Mass rearings:

1.)	L	80
2.)	I	25
3.)	P	0
4.)	p	0
5.)	M	18
6.)	F	6
7.)	E	0
8.)	G	0

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