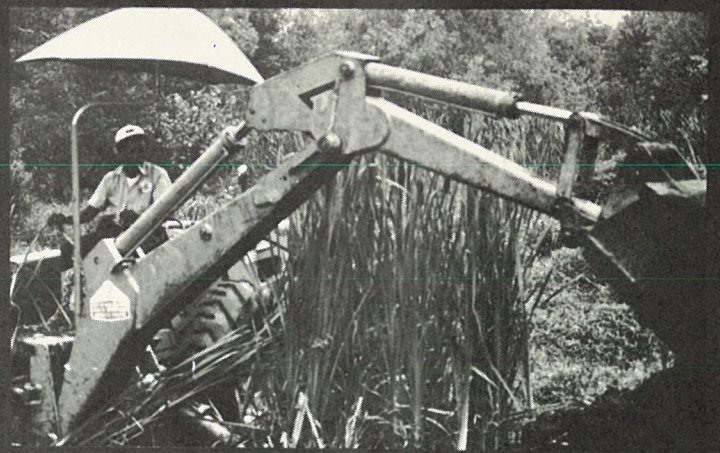
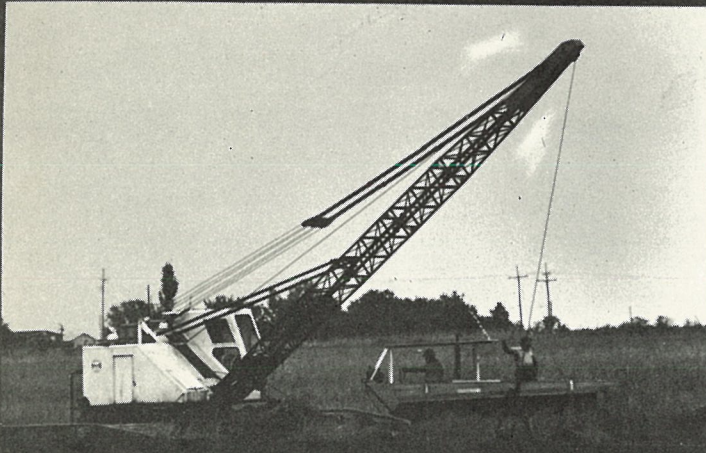


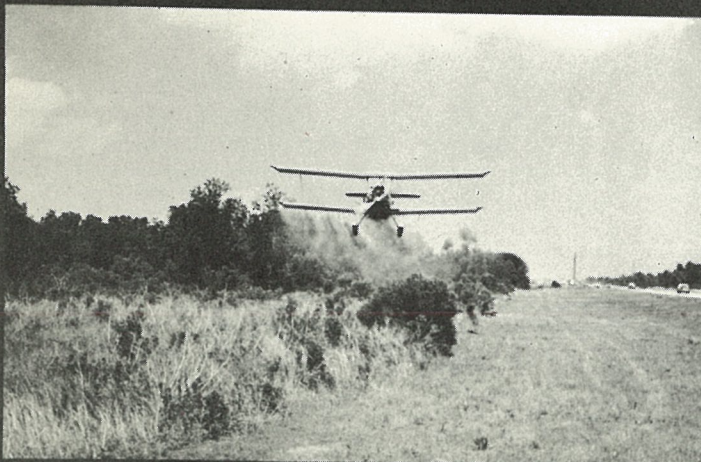
Annual Report

TO THE CITY OF NEW ORLEANS ————— DEPARTMENT OF HEALTH

Mosquito Control



1972





**PRIDE BUILDS
NEW ORLEANS**

MOON LANDRIEU
MAYOR

CITY OF NEW ORLEANS

1972 ANNUAL REPORT

DEDICATION

The Mosquito Control Program of New Orleans is particularly proud of the personnel who work for our Program, and it is to these persons we dedicate this Annual Report. The devotion, sincerity, attitude and responsibility shown by the staff has contributed greatly to the professionalism established in our operations.

Mayor's Advisory Committee on Mosquito Control:

- Mr. Donald F. Rowland, Chairman
Vice-President, New Orleans East, Inc.
- Mr. William E. Wunderlich, Vice-Chairman
Corps of Engineers, Retired
- Mr. Harry Batt, Sr.
President, Pontchartrain Beach Amusement Park
- Honorable Philip C. Ciaccio
Councilman, District "E"
- Dr. Doris H. Thompson
Director of Health
- Honorable Nat G. Kiefer
Senator
- Mr. Charles W. Nutter
Director of Recreation
- Dr. Harold G. Scott
Director, Environmental Health Services

George T. Carmichael,
Mosquito Control Administrator

Department of Health / George T. Carmichael, Administrative Director / Division of Mosquito Control / 6601 Lakeshore Drive / New Orleans, La. 70126

"An Equal Opportunity Employer"

**division of
MOSQUITO CONTROL
Department of Health**

ORGANIZATION CHART

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graph TD
    Board[Board of Health] --> Health[Health Officer]
    Health --> Director[Director]
    Director --> AsstDir[Assistant Director]
    Director --> Advisory[Advisory Committee]
    Director --> Taxonomist[Taxonomist]
    Director --> Aerial[AERIAL ACTIVITIES]
    Director --> Maintenance[MAINTENANCE OPERATIONS]
    Director --> Field[FIELD OPERATIONS]
    Director --> Permanent[PERMANENT CONTROL]

    Aerial --> Pilot[Pilot Civil Service]
    Aerial --> ContractPilot[Contract Pilot]
    Aerial --> ContractMech[Contract Mechanic]

    Maintenance --> EngAide[Engineering Aide]
    Maintenance --> Mechanic1[Mechanic]
    Maintenance --> Laborer[Laborer]
    Maintenance --> MechRepair[Maintenance Repairman]

    EngAide --> EquipOp1_1[Equipment Oper. 1]
    EngAide --> EquipOp1_2[Equipment Oper. 1]
    EngAide --> EquipOp1_3[Equipment Oper. 1]
    EngAide --> EquipOp1_4[Equipment Oper. 1]

    MechRepair --> EquipOp1_1
    MechRepair --> EquipOp1_2
    MechRepair --> EquipOp1_3
    MechRepair --> EquipOp1_4

    Field --> Entomologist[Entomologist]
    Field --> Clerk2[Clerk 2]
    Field --> ClerkSteno[Clerk-Steno 3]

    Permanent --> MCInspector4[M.C. Inspector 4]
    Permanent --> EquipOp4[Equipment Operator 4]
    Permanent --> EquipOp2[Equipment Operator 2]
    Permanent --> EquipOp1[Equipment Operator 1]

    MCInspector4 --> MCInspector3_1[MC Inspector 3]
    MCInspector4 --> MCInspector3_2[MC Inspector 2]
    MCInspector4 --> MCInspector3_3[MC Inspector 1]

    EquipOp4 --> SummerInspector4_1[Summer Inspector]
    EquipOp4 --> SummerInspector4_2[Summer Inspector]
    EquipOp2 --> SummerInspector2_1[Summer Inspector]
    EquipOp2 --> SummerInspector2_2[Summer Inspector]
    EquipOp1 --> SummerInspector1_1[Summer Inspector]
    EquipOp1 --> SummerInspector1_2[Summer Inspector]
  
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MOSQUITO CONTROL - 1972 ANNUAL REPORT

Orleans Parish Mosquito Control continued in the direction of mosquito population evaluation by the adult density methods of truck traps, light traps, man-biting counts and CO₂ activated counts. Work was continued with NASA in the use of infra-red, high altitude photography to identify possible mosquito breeding areas. In-program improvements in adulticiding and source reduction were emphasized in 1972. Encephalitis surveillance was continued and improvements for 1973 will include bleeding small mammals. Aedes aegypti has re-infested the New Orleans area and priorities in our urban program must be adjusted.

Adult density survey refinement was in the direction of correlation of climatological data to mosquito activity. The effect of temperature, time of day, relative humidity, wind speed and incident light on mosquito activity was evaluated. Mosquito activity is a result of the web of influence created by the interaction of these weather conditions on the natural inclinations of the mosquito. The end result of this endeavor is to outline the parameters that affect mosquito activity and allow infestations to be evaluated under optimum climatological conditions. Information that tells us where the mosquito problem is, also gives us the best field evaluation of treatment methods. To reap full

value from adult density survey as outlined here the survey must be conducted on a daily basis.

Collection methods vary as to species attracted to that particular collection technique. In Orleans Parish the larval survey is geared to measure Culex quinquefasciatus activity. Carbon dioxide activated landing rates give us a good measure of Aedes vexans, Culex salinarius, woodsy type Aedes and Psorophora. Man-biting counts are used to measure Aedes sollicitans activity. Light trap collections give us our best base line information on mosquito densities because our records go back to 1965. Culex salinarius is the species most attracted by light and dominates our light trap collections. Truck trap collections are the most un-biased survey method and their use will be intensified in the upcoming mosquito season. Tachographs that will give us an accurate reading on the time the truck trap is operated and the speed it travelled will be in use for 1973.

Source reduction and prevention is the key to successful mosquito control. Inspection and surveys to locate mosquito breeding and establish priority must precede a good source reduction program. In 1969 the permanent control program initiated an 8,500 acre water management program in East New Orleans and insecticide usage dropped from in excess of 100,000 gallons

of mixed insecticide in 1968 down to less than 40,000 gallons of mixed insecticide in 1969 and 1970.

Source reduction is particular for the area of practice. Orleans Parish requires the use of amphibious draglines, rubber-tired backhoes, crawler-dozers, dump trucks and now for maintenance of operations and marsh areas we are in the process of designing an amphibious backhoe-trenching machine. Further evidence of the success of source reduction can be found in light trap collections that date back to 1965. Aedes sollicitans peaks in 1965, 1966, and 1967 were in the 15,000 to 25,000 range per trap night. In 1970 and 1971 the highest peaks were less than 1,500 per trap night. Aedes sollicitans still present a problem in marsh areas of Orleans Parish but in general, the problem has moved to the permanent water mosquitoes, in particular, Culex salinarius.

Ground ULV techniques replaced the familiar ground thermal fogging units. In addition to the safety factor of a mist that does not hamper vision, a reduction from 40 gallons per hour of mixed insecticide to 1 to 1½ gallons of total insecticide used, was realized. The reduction in cost was from \$4.11 a mile for thermal fog down to \$1.51 a mile for ULV. Time in the treatment area was reduced considerably as the ULV units operate at 10 mph as compared to the 5 mph of the thermal fog units.

Aerial ULV was provided by the District's DC-3. Malathion and Dibrom were applied at the approved rates of 2-3 oz. per acre Malathion and 3/4-1 oz. per acre Dibrom. The Douglas DC-3 underwent a complete inspection and complete mechanical restoration. For smaller localized adult mosquito problems the Grumman Ag-Cat was utilized to apply 1 quart per acre of mixed insecticide, again Dibrom and Malathion were the insecticides of choice. Larviciding with Flit and diesel oil was also included in the Ag-Cat operation.

Encephalitis surveillance was continued through 1972. Sentinel flocks were placed at 5 strategic locations throughout the City and were bled every two weeks. Wild birds were trapped by use of mist nets and walk-in traps and also bled. All bloods were submitted to the Louisiana State Board of Health Laboratory for encephalitis antibody detection (hemagglutination inhibition). Of the 1,017 blood samples submitted, only 1% were positive for encephalitis antibodies -- this is a very acceptable level. With the advent of Venezuelan Equine Encephalitis in the area, we will be bleeding small mammals in addition to the birds and chickens. Additional techniques will have to be developed to trap and bleed these small mammals.

Remote sensing work continues in New Orleans East. The use of high flying aircraft to detect mosquito breeding areas will take a great deal more time and work to mature. A 200 acre test

plot in a land area between Lake Pontchartrain and Lake St. Catherine was photographed using color, color-infrared, multiband sensor, and film combinations. Ultimately, remote sensing techniques will be used to recognize the ecological set necessary to produce salt-marsh mosquitoes. Ground truthing methods continue in pursuit of correlation between mosquito breeding and the ecological variables of their habitat. When the NASA operated Earth Survey-1 (NP-3A) aircraft flew over New Orleans and took photographs with its bevy of cameras, a group from Orleans Parish Mosquito Control were in the field, under the aircraft, taking closeup photographs of the vegetation to be identified by the aerial photography. Remote sensing techniques, with electronic manipulation, will detect the plant communities photographed and ground truthing techniques will be used to properly identify the plant community with that specific color. This cooperative study conducted by OPMC and NASA/MSD will eventually lead to the application of remote sensing to public health problems involving arthropod-borne disease vectors and soil or water-borne diseases.

Aedes aegypti has reinfested Orleans Parish after an absence of some 15 years, and control methods and source reduction techniques are in the planning stage to combat this pest in 1973. Junk yards, cemeteries, parks, public gardens and any source of

artificial containers will be the targets for inspection and source reduction. Once it was thought that Aedes aegypti was imported each year into New Orleans via South American shipping routes. But it now seems more likely that the winter months reduce the numbers of Aedes aegypti adults and larvae, but in the New Orleans area the more resistant eggs could very easily survive our mild winters. In retrospect, 1972 was an eventful year at Orleans Parish Mosquito Control and the many facets of our control operation should prove eventful and fruitful for the future.

ENTOMOLOGICAL REPORT - 1972

Mosquito populations can generally be said to deviate with given sets of weather conditions. Throughout 1972, Louisiana experienced unusually mild weather conditions, with winter temperatures markedly below the seasonal norm, and rainfall only a few inches below the annual norm. It was this set of weather conditions that contributed to a general increase in mosquito numbers in Orleans Parish.

The continuation of mild winter conditions of November and December of 1971 continued to enhance breeding problems for the first half of 1972. Culex salinarius (permanent water breeder)

accounted for the majority of the light trap catches through early June. Flood water mosquitoes began a gradual increase in April, peaking in November. Adult mosquito activity returned to normal in June, remaining stable throughout July. Light trap counts of flood water mosquitoes began a sharp increase in early August, quadrupling by late October. This problem was amplified by the loss of the summer inspectors in early August. Cold weather in October reversed the two month increase of permanent water mosquitoes. Light trap collections remained high throughout November and December although counts were declining rapidly.

October of 1972 will be remembered as the month that Aedes aegypti (yellow fever mosquito) returned to the New Orleans area at a detectable level. Localized complaints involving a bright silver and black mosquito inside the home that is active during the daylight hours allowed the inspection staff of New Orleans Mosquito Control to discover the largest numbers of aegypti seen in this area in over 20 years.

DOMESTIC MOSQUITO CONTROL

Due to the unusually warm weather, mosquito activity was relatively high in January. Culex salinarius greatly contributed to our problem.

1972 MOSQUITO CORRELATION

MOSQUITO AVERAGE PER TRAP NIGHT

AVG. TEMP. F.

AVERAGE TEMPERATURE
FOR 24 HOUR PERIOD OF
LIGHT TRAP OPERATION

PERMANENT WATER
MOSQUITOES

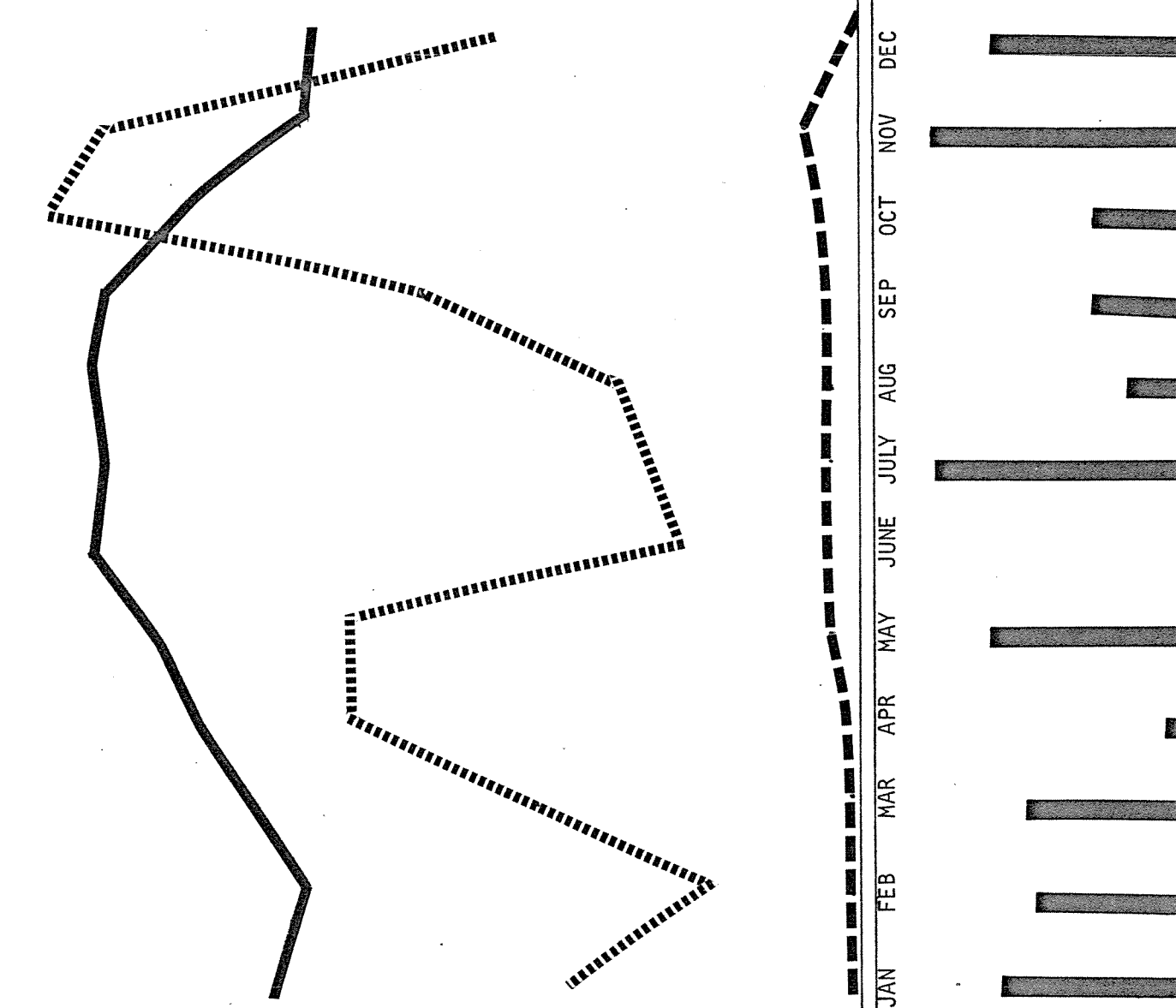
FLOOD WATER MOSQUITOES

RAINFALL

200 180 160 140 120 100 80 60 40 20

8" 6" 4" 2"

JAN FEB MAR APR MAY JUNE JULY AUG SEP OCT NOV DEC



MONTHLY ACCUMULATIVE RAINFALL

	<u>AVERAGE RAINFALL</u>	<u>ACCUMULATIVE AVERAGE</u>	<u>1972</u>	<u>TOTAL TO DATE</u>	<u>DEVIATION FROM NORMAL</u>
JANUARY	4.19	4.19	6.17	6.17	+ 1.98
FEBRUARY	4.56	8.75	5.29	11.46	+ 2.71
MARCH	4.94	13.69	5.47	16.93	+ 3.24
APRIL	4.85	18.54	1.36	18.29	- 0.25
MAY	4.58	23.12	6.62	24.91	+ 1.79
JUNE	5.28	28.40	1.20	26.11	- 2.29
JULY	6.59	34.99	8.33	34.44	- 0.55
AUGUST	5.89	40.88	2.68	37.12	- 3.76
SEPTEMBER	5.48	46.36	3.66	40.78	- 5.58
OCTOBER	3.18	49.54	3.94	44.72	- 4.82
NOVEMBER	3.21	52.75	8.56	53.28	+ 0.53
DECEMBER	4.70	57.45	6.93	60.21	+ 2.76

Much of February and March were spent in mapping Audubon Park and Algiers. In March the inspectors began to build chicken cages which would be used to house the sentinel flocks. March also marked the beginning of increased adult density surveys. It is interesting to note that an improvement was made in the equipment used to take CO₂ landing rates. A 12-volt wet cell battery was substituted for two 6-volt flashlight batteries. The new batteries are cheaper, rechargeable, lighter, and easier to handle. The majority of April was spent on finishing the chicken cages.

May through July was a very active mosquito period. Six to ten inches of rain and high tides on the Chef Highway caused the greatest problems. August was a very dry month but in September high tides on the Chef Highway were a source of mosquito problems. The majority of September and October was spent in alleviating the Aedes sollicitan population in the Chef Menteur area.

The mosquito activity dropped greatly in November and December, therefore, training programs were scheduled.

The inspectors were also able to remap many remote areas.

MARSH INSPECTION

In 1972, regularly scheduled helicopter flights were

continued. During the mosquito season, the flights were taken once a week for one hour. The inspectors were able to continue to familiarize themselves with the marsh. Because of their greater familiarization of the marsh, the inspectors were able to prepare more detailed maps.

DOMESTIC MOSQUITO CONTROL REPORT - 1972

<u>Domestic Floodwater Inspection and Treatment</u>		<u>Pos.</u>	<u>Neg.</u>
8.5% positive	Areas inspected 5,299	453	4,846
	Man hours 1,619		
	Miles traveled 9,641		
	Gallons larviciding oil used.. 1,665		
<u>Domestic Permanent Water Inspection and Treatment</u>		<u>Pos.</u>	<u>Neg.</u>
9.3% positive	Areas inspected 2,218	208	2,010
	Man hours 1,072		
	Miles traveled..... 3,930		
	Gallons larviciding oil used.. 272		

FIELD OPERATIONS - 1972

(Adult Survey and Treatment)

In 1972, the same methods of collection were used as in the previous year. These methods proved reliable in collecting different species of mosquitoes. The four methods used were:

- 1) New Jersey Light Traps
- 2) Truck Traps:
- 3) Landing Rates
- 4) CO₂ Landing Rates.

Light traps were run bi-weekly at 28 strategic locations throughout Orleans Parish.

Truck traps were run daily, 1/2 hour after sunset. The prime mosquito activity occurs at this time, and therefore, a more accurate sample can be obtained.

Landing rates were taken by using two slightly different methods. CO₂ landing rates employ carbon dioxide to attract mosquitoes, which are then captured by the use of a vacuum cleaner, whereas landing rates are taken when an inspector counts the number of mosquitoes which land on him during a certain time interval.

CONTROL OPERATIONS - 1972

Light Trap Operations

2,554 light trap collections	
869 man-hours on light trap collections	\$ 2,383.30
8,680 miles traveled @ 3¢ per mile	<u>260.40</u>
Cost of light trap operations	\$ 2,643.70

Landing Rate Counts

12,146 landing rates	
2,937 man-hours on landing rates	\$ 8,309.14
36,111 miles traveled @ 3¢ per mile	<u>1,083.33</u>
Cost of landing rates	\$ 9,392.47

Areas Inspected for Mosquito Breeding

Floodwater areas	5,683
Domestic areas	2,359

Flying Hours

Ag-Cat	137.0 hrs.
DC-3	35.0 hrs.

Truck Trap Operations

498 man-hours on truck traps	\$ 1,760.95
5,317 miles traveled @ 3¢ per mile	<u>159.51</u>
Cost of truck trap operations	\$ 1,920.46

Identification of Mosquitoes

311,671 mosquitoes identified	
7,902 larvae identified	\$ 2,243.43
689 man-hours identifying mosqs. & larvae	
Cost of identification	\$ 2,243.43

Light Trap Maintenance

157 man-hours on light trap maintenance	\$ 447.82
912 miles traveled @ 3¢ per mile	<u>27.36</u>
Cost of light trap maintenance	\$ 475.18

Inspection and Mapping

3,604 man-hours inspecting and mapping	\$ 9,928.21
13,435 miles traveled @ 3¢ per mile	<u>403.05</u>
Cost of inspection and mapping	\$10,331.26

Ground Larviciding

801 man-hours ground larviciding	\$ 3,714.40
2,415 miles traveled @ 3¢ per mile	72.45
1,957 gallons diesel @ 13¢ per gallon	<u>254.41</u>
Cost of ground larviciding	\$ 4,041.26

Fogging

Hours	839.4 hrs.
Miles Traveled	9,301.0

Bird Trapping

918 man-hours bird trapping	\$ 2,825.02
2,103 miles traveled @ 3¢ per mile	<u>63.09</u>
Cost of bird trapping	\$ 2,888.11

Sentinel Chickens

1,733 man-hours sentinel chickens	\$ 4,856.32
3,215 miles traveled @ 3¢ per mile	<u>96.45</u>
Cost of sentinel chickens	\$ 4,952.77

Dragline Activities

Linear footage	47,790
Cubic yards dug	18,165

Backhoe Activities

Linear Footage	39,593
Cubic yards dug	13,145

Dumptruck Activities

Total hours	462
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Crawler Activities

Total hours	308
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Calibration

117 man-hours on calibration	\$ <u>366.56</u>
Cost of calibration	\$ 366.56

General Office Work

708 man-hours on general office work	\$ <u>2,280.48</u>
Cost of general office work	\$ 2,280.48

Shop Work

363 man-hours on shop work	\$ <u>976.73</u>
Cost of shop work	\$ 976.73

Miscellaneous

1,720 man-hours on miscellaneous jobs	\$ 5,232.84
2,835 miles traveled @ 3¢ per mile	<u>85.05</u>
Cost of miscellaneous jobs	\$ 5,317.89

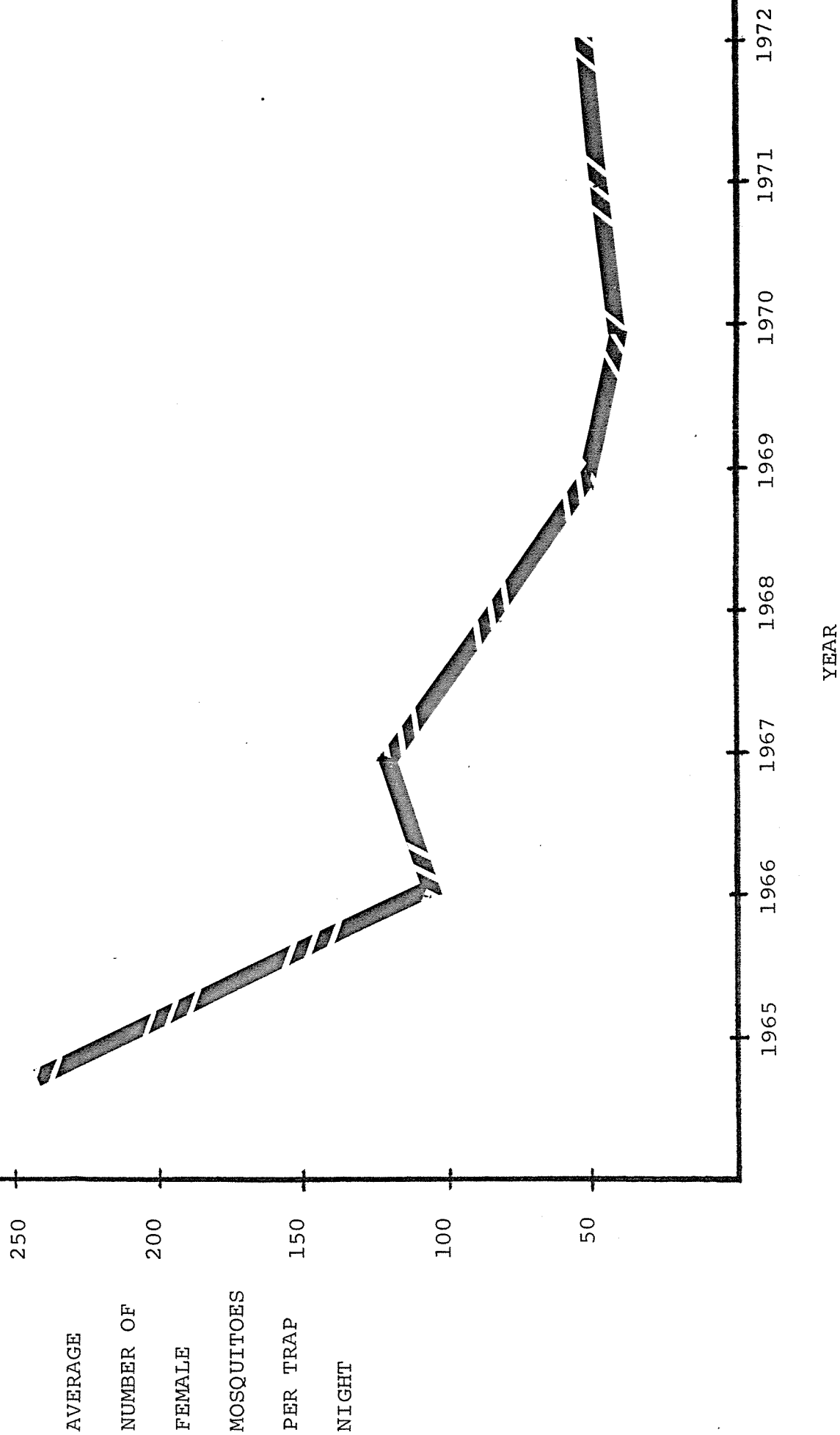
LOCATION	TOTAL		ABDES		ANOPHELES		CULEX		CULIS.	MANS.	Culex	OTHER	NO.
	MALE	FEMALE	SOLL.	VEX.	CRUC.	QUAD.	QUING.	SAL.	INORN.	FERT.	restuans	SPP.	COLL.
1. LOW. ALGERS	301	4495	96	156	248	171	18	3171	112	94	79	350	92
2. MID. ALGERS	246	2636	2	65	48	51	11	2210	138	48	55	8	62
3. UP. ALGERS	308	1535	5	60	23	7	29	1312	33	2	51	13	88
4. CAFFIN AVE.	430	1625	4	132	58	8	39	1300	23	1	49	11	85
5. VIEUX CARRE	221	520	4	49	19	3	78	335	3	0	9	20	94
6. TRISH CHANN.	170	612	4	102	46	14	33	374	11	1	21	6	92
7. NAPOLEON	154	284	1	40	1	6	3	210	10	0	4	9	90
8. AUDUBON	114	344	0	48	23	18	23	187	13	2	17	13	87
9. CITY PARK	156	857	14	75	24	0	10	647	22	4	58	3	92
10. LAKEWOOD	469	2240	7	187	68	17	50	1785	33	0	65	28	92
11. WEST END	134	799	6	78	97	15	12	548	19	1	15	8	90
12. ISUNO	310	1617	6	132	79	10	15	1200	29	0	91	55	93
13. PEOPLES AVE.	44	168	4	17	17	0	7	114	3	0	3	3	58
14. EADS	270	1284	11	177	136	10	35	816	44	0	32	23	90
15. GENTILLY E.	86	194	5	15	8	5	3	150	1	0	5	2	86
16. LAKE AIRP.	102	419	16	54	38	8	9	268	1	0	13	12	80
17. LITTLE WOODS	555	1979	42	370	85	18	27	1289	31	4	67	46	103
18. VIL. del EST.	140	2802	33	136	207	17	24	1996	27	8	34	320	88
19. BIENVENUE	455	3568	91	208	261	24	11	2806	46	0	61	60	85
20. MICHOUD	209	2989	85	389	144	34	18	1911	71	2	228	107	101
21. POWERS JCT.	8721	89194	1632	584	3932	250	279	79882	375	26	692	1542	97
22. SO. SHORE	658	19012	217	111	1023	29	16	16960	50	27	3	576	91
23. CHEF MENTEUR	1163	5845	55	36	1090	88	120	4145	21	0	173	117	97
24. GREENS DITCH	2599	27844	377	343	5167	347	322	20566	42	18	419	243	91
25. RIGOLETS	3077	41756	2213	561	8404	1450	324	26329	357	26	624	1468	99
26. BONITA DR.	463	12677	2111	193	1839	284	31	7546	167	4	273	229	92
TOTAL	21672	230403	7065	4543	23254	2902	1567	180470	1753	281	3286	5282	2384

ORLEANS PARISH MOSQUITO CONTROL

LARVAE COLLECTED AND IDENTIFIED - 1972

	As	Av	ANsp	Cq	Cs	Atr	Cr	CSI	Aae	At	Pc	Pf	Phw	PUPAE	UNID.	TOTALS
JAN.	29	307	8	286	187		141	59						247		1264
FEB.	4	37	27	249	235	8	211	11			1			51	1	835
MAR.	22	69		146	57	10	40	6						67	2	419
APR.	No larvae collected															
MAY	14	385	4	696	81		67				7	7		43		1304
JUN.	4	10		310			3				5					332
JUL.	99	5	2	266							6			12		390
AUG.	15	3		207	7						1			19		252
SEP.	77			115	2									27		221
OCT.	147	79	21	593	36		21		27		1		3	101	51	1080
NOV.	13	48	7	233	86	25	140	27	78	4				61	27	749
DEC.	15	30	4	210	216	24	296	109	1					124	27	1056
TOTALS	439	973	73	3311	907	67	919	212	106	4	21	7	3	752	108	7902

AVERAGE LIGHT TRAP COLLECTIONS, ORLEANS PARISH 1965-1972



FOGGING REPORT

The weather conditions during 1972 were unstable and hampered fogging operations throughout the year.

In the first four months of 1972, the fog trucks were assigned one day because of the bad weather conditions.

In May, a new formulation for ground ULV adulticiding was put into use. A state label was approved for the use of one part Dibrom and nine parts heavy aromatic Naptha (HAN). This formulation was a valuable tool in the control of Culex salinarius.

The trucks were only assigned two nights in June because of a very low mosquito population.

In July, Malathion was used instead of the Dibrom-HAN mixture. The reason for this was an attempt to prolong the usefulness of both insecticides.

August brought bad weather and little fogging, but in September, the trucks fogged fourteen nights because of a rise in the mosquito population.

Bad weather was responsible for a minimum of fogging in the last three months of the year.

Total man-hours	838.39
Hours adulticiding	412.41
Gallons Malathion used	745.41
Gallons Dibrom used	13.30
Total miles traveled	9,302.80

Miles adulticide	5,476
Insecticide cost	\$ 4,987.03
Labor cost	\$ 2,179.82
Cost of oil and gas	\$ 390.87
<hr/>	
Total Cost of	
Ground Adulticiding	\$ 7,557.72

ENCEPHALITIS SURVEILLANCE

The problem of arthropod-borne encephalitis is monitored in Orleans Parish throughout the year but particularly during the active period of the arboviruses. Both wild and domestic birds were used during 1972 as an index of arbovirus activity. Early recognition of virus activity is mandatory because human cases may follow in a short period of time.

Five sentinel flocks of approximately 20 chickens each and increased netting of both domestic and migratory birds resulted in the largest number of blood samples ever collected. One thousand two hundred twenty-three (1,223) birds were bled during 1972 as compared to 795 the previous year. This represents an increase of 45% over 1971.

Blood samples taken are sent to the State Serology Lab for hemagglutination inhibition tests for Eastern, Western, and St. Louis Encephalitis.

Mosquitoes are vectors of these etiological agents, but

indigenous and migratory birds as well as small animals serve as natural hosts during the season of active transmission.

The purpose of an encephalitis surveillance program is to detect increases in virus activity before it spills from the bird, through the mosquito, into the human population.

Birds Tested During 1972

<u>Common Name</u>	<u>Species</u>	<u>Number</u>
Chickens		679
House Sparrow	(<u>Passer domesticus</u>)	416
Rock Dove	(<u>Columba livia</u>)	24
Orchard Oriole	(<u>Icterus spurius</u>)	1
Brown Thrasher	(<u>Toxostoma rufum</u>)	1
Starling	(<u>Sternus vulgaris</u>)	1
Blue Jay	(<u>Cyanocitta cristata</u>)	35
House Wren	(<u>Troglodytes aedon</u>)	2
Loggerhead Shrike	(<u>Lanius ludovicianus</u>)	2
Morning Dove	(<u>Zenaidura macroura</u>)	5
Mockingbird	(<u>Mimus polyglottos</u>)	2
Song Sparrow	(<u>Melospiza melodia</u>)	1
Cardinal	(<u>Richmondia cardinalis</u>)	9
Carolina Wren	(<u>Thryothorus ludovicianus</u>)	2
Common Grackle	(<u>Quiscalus quiscula</u>)	1
E. Wood Pewee	(<u>Contopus virens</u>)	1
Swainson's Thrush	(<u>Hylocichla ustulata</u>)	1
Baldpate	(<u>Mareca americana</u>)	2
Shoveller	(<u>Spatula clypeata</u>)	2
Wild Ducks		36

AERIAL ACTIVITIES

The year 1972 proved to be quite low for both aircraft operated by Mosquito Control.

The Grumman was flown a total of 114.80 hours. The breakdown of this flight time is as follows:

Adulticiding	114.80 hours	
Material dispensed	4,135	gallons 8% Malathion
Total area treated with adulticiding chemical	40,050	acres.

The Douglas was flown a total of 24.75 hours. Most of the flight year was spent in maintenance and training. The breakdown of multi-engine flight time is as follows:

Total hours in flight	24.5 hours	
Material dispensed	1,494	gallons technical Dibrom 14
Total area treated	80,887	acres.

Rental flights were flown throughout the year with a total cost of \$1,356.00.

DC-3

Fuel cost	\$ 3,360.00
D-14	<u>16,171.21</u>
Total Cost	\$ 19,531.21

AG-CAT

Fuel cost	\$ 8,550.00
3% Malathion	5,283.11
8% Malathion	2,763.50
T-2 (diesel oil)	815.00
Paris Green	<u>1,225.00</u>
Total Cost	\$ 18,636.61.

PERMANENT CONTROL

Permanent control activity was centered around the use of the dragline, backhoe and dumptruck-crawler combination. Most of the dragline's activity was confined to ditching areas in East New Orleans, which flooded relatively easily with high tide. The ditching operation allowed for smooth ingress and egress of predatory fish.

In February and March the dragline repaired a section of broken levee in the area of Blind Lagoon. Also at this time the dragline constructed a 2,500 foot coffer dam to prevent the loss of impounded waters through the break in the levee.

The backhoe was used in ditching work that aerial and ground inspection indicated was still breeding mosquitoes. The dredging of drainage canals in the Little Woods area created a tremendous problem for Orleans Parish Mosquito Control. As the canals were

dredged, the spoil was piled along the sides creating a levee. These levees stopped the normal flow of rainwater out of the areas into the canals, thus forming large areas of standing water and many, many mosquitoes. Most backhoe activity was centered around eliminating this problem.

The dumptruck-crawler was used to fill lots in the City which the inspectors indicated bred frequently. The prime areas of operation in 1972 were in City Park and the N areas (Lakeview). T. L. James Co. cooperated with our operation in City Park by allowing us to use their excavation from the I-10 construction site in City Park. This shifted our entire operation from loading, dumping and grading to just grading the fill right in the same area.

Personnel: 1 Permanent Control Supervisor
 1 Equipment Operator IV
 2 Equipment Operators II
 1 Equipment Operator I
 1 Maintenance Repairman

Equipment: 1 Little Giant 3/8 yard amphibious
 dragline, equipped with a 1/2 yard
 bucket
 2 Allis Chalmers 615 backhoes
 1 Case 350 dozer-crawler
 1 Chevrolet 6 yard dumptruck
 1 Ford 1/2 ton pickup - 4 wheel drive
 1 International 1/4 ton pickup
 1 Ford 1/4 ton pickup

Total value of equipment: approximately \$70,000.

DRAGLINE REPORT

Total hours	969.5
Total digging hours	488.9
% digging time	50%
Total linear feet dug	47,790
Total cubic yards dug	18,160.60
Cost of fuel and oil	\$ 85.33
Miscellaneous cost	\$ 586.96
Salary cost	\$ 3,841.90
Total Cost	4,514.19
Cost of linear foot	.09
Cost per cubic yard	.24
Linear feet per digging hour	97

BACKHOE REPORT

Total linear feet dug	39,593
Total cubic yards	13,141
Total digging hours	692
Total hours	1,022
% time digging	67%
Fuel and oil cost	\$ 65.50
Salary cost	\$ 4,217.87
Miscellaneous cost	\$ 569.66
Total Cost for Month	\$ 4,853.03
Cost per linear foot	\$.12
Cost per cubic yard	\$.36
Linear foot per digging hour	57

DUMPTRUCK-CRAWLER REPORT

Man-hours on dumptruck	493
Man-hours on crawler	253
Total miles	3,992
Total cubic yards	2,589
Cost of fuel and oil	\$ 132.00
Salary cost	\$ 2,388.95
Miscellaneous cost	\$ 51.34
Total Cost	\$ 2,572.29
Cost per cubic yard	\$.99

