Virus Name: Wyeomyia	Abbreviation: WYOV

Status
Probable Arbovirus

Select Agent
No

SALS Level
2

SALS Basis
Results of SALS surveys and information from the Catalogue.

Other Information

Antigenic Group
Bunyamwera

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
Original

Accession Number

Original Date Submitted
2/21/1985

Family
Bunyaviridae

Genus
Bunyavirus

Information From
M. Roca-Garcia

Address

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
M. Roca-Garcia, (1)

Isolated at Institute
Villavicencio, Meta, Colombia

Host Genus
Wyeomyia melanocephala

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
Caught by hand

Collection Date
8/11/1940

Place Collected (Minimum of City, State, Country)
"El Horizonte" reg. Villavicencio, Meta, Colombia

Latitude
5° N

Longitude
74° W

Macrohabitat
Rural community, hilly terrain, rain forest vegetation

Microhabitat
Out-of-doors under shade, pastures; about 1000 feet sea level

Method of Storage until Inoculated

Footnotes

Section III - Method of Isolation

Inoculation Date
8/11/1940

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation

Other Reasons
Hitherto undescribed virus (1)

Homologous Antibody Formation by Source Animal

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical

Pieces (number of genome segments)	Infectivity	Sedimentation Coefficients(s) (S)
Percentage wt, of Virion Protein	Lipid	Carbohydrate
Virion Polypeptides: Number	Details	
Non-virion Polypeptides: Number	Details	
Virion Density	Sedimentation Coefficients(s) (S)	
Nucleocapsid Density	Sedimentation Coefficients(s) (S)	

Stability of Infectivity (effects)

pH (infective range)

Lipid Solvent (ether - % used to test)	After Treatment Titer	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate) **1:1000**	After Treatment Titer **3.6 dex inact.(2)**	Control Titer

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions	
Mean nm	Range nm	
Measurement Method	Surface Projections/Envelope	Nucleocapsid Dimensions, Symmetry

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
Inclusion Bodies	Other	

Hemagglutination

Hemaggiutination	Antigen Source	Erythrocytes (species used)
Yes	**SMB ext. by sucrose-acetone**	**Goose**
pH Range **6.0-7.2**	pH Optimum	
Temperature Range **4dC, 22dC and 37dC**	Temperature Optimum	

Remarks
Low-titered HA may be produced with the BeAr 671 (Brazil) strain.

Serologic Methods Recommended
NT and CF

Footnotes
Low-titered HA may be produced with the BeAr 671 (Brazil) strain.

Section V - Antigenic Relationship and Lack of Relationship to Other Viruses

Wyeomyia has been placed in the Bunyamwera Group [9] . For relation to viruses within the Bunyamwera group consult the respective Catalogue cards.
SIRACA has antigenically classified Wyeomyia virus as a distinct virus type and placed it in the Wyeomyia complex, one of four complexes comprising the Bunyamwera serogroup [18] .
It is possible that isolates listed under "Natural Host Range" represent a complex of closely-related viruses.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (M) (3)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn and weanling mice

Cell system (a)	Virus passage history (b)	Evidence of Infection							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
HeLa (CL)			CPE (13)						
BHK-21 (CL)	MB 208	2	4+	8.3* (15)		Plaques (14)			
Vero (CL)	P-206				3	2 mm	7.4* (17)		
LLC-MK2 (CL)					3	2 mm	6.9 (17)		

* Expressed in dex

Section VII - Natural Host Range (Additional text can be added below table)

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Man (blood)	1	10/59 NT	Darien, Panama (3)
Man		8/30 NT	Trinidad (4)
Wild birds		1/100 NT	
Wyeomyia melanocephala	1		Meta, Colombia (1)
Wyeomyia spp.; Wy aporonoma; Wy complosa; Wy melanocephala; Limatus spp.; Trichoprosopon spp.; Tr digitatum; Tr leucopus; Tr longipes; Coquillettidia arribalzagai; Psorophora cingulata and Anopheles spp.			Pacific lowlands, Colombia (5)
Psorophora ferox and Aedes fulvus			Magdalena Valley, Colombia (6)
Aedes (Och) spp.; Aedes fulvus and Psorophora ferox			Magdalena Valley, Colombia (7)
Psorophora spp.; Ps ferox and Culex nigripalpus			Almirante, Panama (8, 16)
Aedes scapularis; Psorophora spp.; Ps albipes; Ps ferox; Trichoprosopon digitatum; Tr longipes; Limatus spp.; Li durhamii; Li flavisetosus and Culex amazonensis			Trinidad (4)
Aedes septemstriatus; Ae serratus; Ae sexlineatus; undif. Sabethini and Trichoprosopon digitatum			Belem, Brazil (10)
Wyeomyia sp.; Wy aporonoma; Aedes argyrothorax; Hemagogus leucocelaneus; Anopheles nimbus and Limatus spp.			Belem, Brazil (11)
Aedes taeniorhynchus			French Guiana (12)
Wyeomyia occulta	1		French Guiana (19)

Section VIII - Susceptibility to Experimental Infection (include viremia)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log10/ml
Mice (nb)	MB 20	ic 0.02	Paralysis and death(1)	5	5.0
Mice (nb)		ip 0.06	Paralysis and death(1)	6	5.0
Mice (nb)		sc			
Mice (wn)		ic 0.03	Paralysis and death(1)	6	5.0
Mice (wn)		ip 0.5	Immunity		
rhesus monkey (ad)		ic 1.0	None		
rhesus monkey (ad)		sc 3.0	None		
Didelphis marsupialis (ad)		ic 0.1	None		
Didelphis marsupialis (ad)		sc 2.0	None		
guinea pigs (ad)		repeated	None		
rabbits (ad)		repeated	None		

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmision by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System

Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies — Intranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human Disease

In Nature — Residual — Death
Reported

Subclinical — Overt Disease

Clinical Manifestations
Fever (R)

Number of Cases — Category (i.e. febrile illness, etc.)
Febrile illness

Section XII - Geographic Distribution

Known (Virus detected)
Colombia, Panama, Trinidad, Brazil, French Guiana

Suspected (Antibody only detected)

Section XIII - References

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Remarks