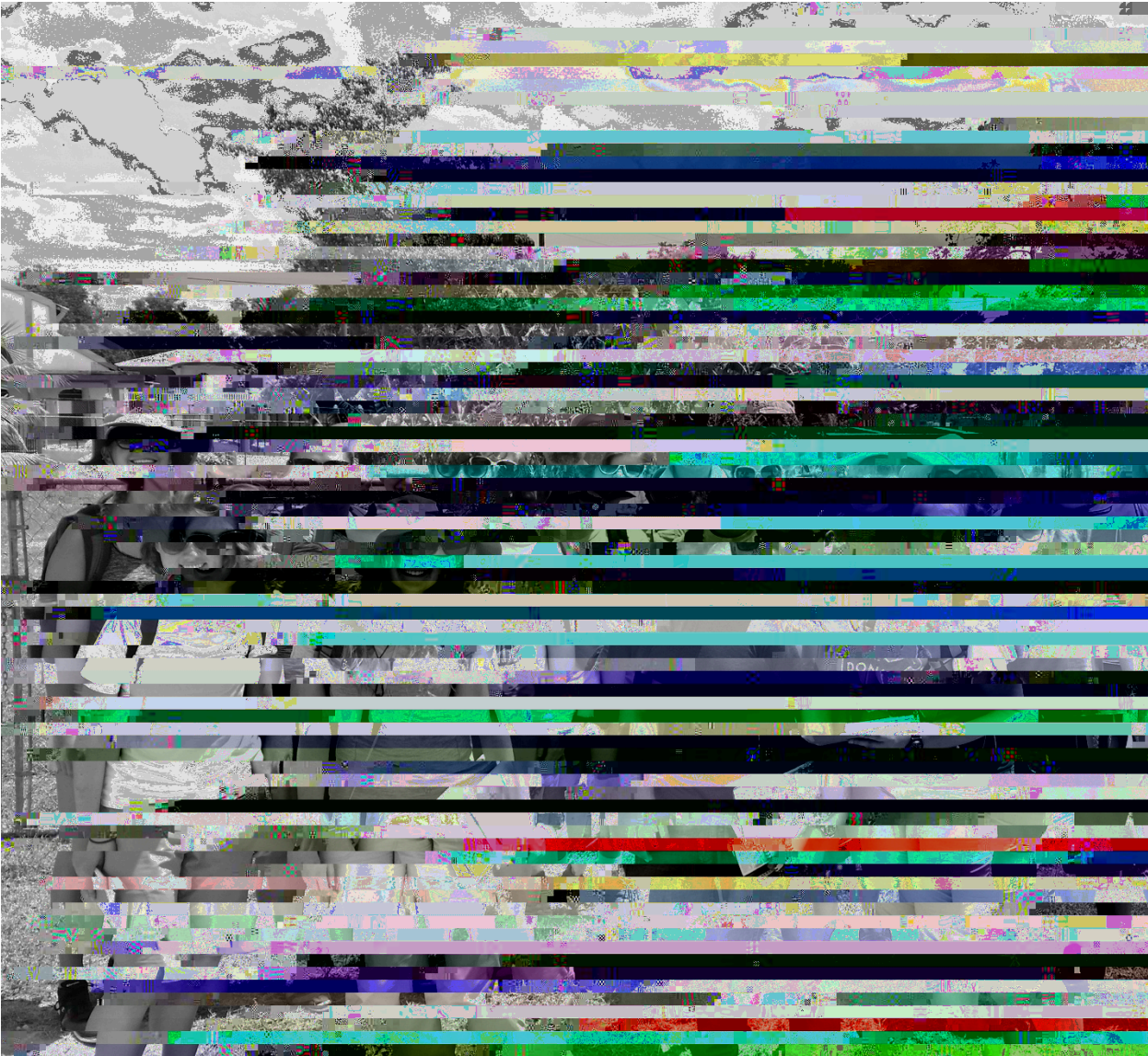


REPORT OF THE ETHNOGRAPHIC FIELD SCHOOL IN BELIZE (JUNE 2016 SEASON)



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CENTER FOR APPLIED ANTHROPOLOGY, NORTHERN KENTUCKY UNIVERSITY

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Table of Contents

Acknowledgements	i
Introduction	1
Background	1
Methods	2
Community Development	3
Demographics	3
Education Costs	3
Child Labor	3
Sugar Cane Organization Roles	3
Sugar Cane Price Fluctuation	4
Zika Virus	4
Kidney Disease	4
Sugar Cane Farming	5
Demographics	5
Protective Gear	5
Fertilizer Attributes	5
Herbicide Attributes	6
Pesticide Attributes	6
Humans and Nature	6
Sugar Cane Varieties	8
Conclusion	9
Appendices	
Appendix I: Informed Consent Statement English	11
Appendix II: Informed Consent Statement Spanish	12
Appendix III: Ethnographic Interview Schedule (Procedure), Part I	13
Appendix IV: Ethnographic Interview Schedule (Procedure), Part II	14
Appendix V: Occupations	16
Appendix VI: Education	17
Appendix	

Appendix XXII: Informant/Sugar Cane Network I	36
Appendix XXIII: Informant/Sugar Cane Network II	37
Appendix XXIV : Informant/Sugar Cane Network III	38
Appendix XXV: Informant/Sugar Cane Network IV	39
Appendix XXVI: In formant/Sugar Cane Network V	40
Appendix XXVII: Informant/Sugar Cane Network VI	41
Sources Cited	43

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Introduction

This report documents the findings of the Ethnographic Field School in Belize organized by the Center for Applied Anthropology (CfAA) at Northern Kentucky University (NKU) in Orange Walk District, Belize, during June 2016. Ethnographic interviews were conducted within the communities of San Estevan, San Lazaro, and Yo Creek in cooperation with the Sugar Industry Research and Development Institute (SIRDI), Belize Sugar Can Farmers Association (BSCFA), Progressive Sugar Cane Producers Association (PSCPA), and the three communities within which interviews took place. This field season's research focused on the following topics:
community development

been three publications specifically on sugar cane farming in northern Belize: 1) the impact of falling sugar cane prices on urban populations and their development (Morris, Angel, and Hernández 2017); 2) how the sugar cane industry influences social organization (Cooper 2017);

Community Development

Demographics

In total, 350 informants were interviewed; 108 in San Estevan, 100 in San _____, and 140 in Yo Creek as well as two informants at D*Victoria Hotel. Of the 350 informants, 65 reported that they were sugar cane farmers. The average age of the informants was 38.8 years with a minimum age of 18 and maximum age of 82 years old. Sixty-seven percent of the informants were male and the remaining 43% were female. The most common primary occupation reported was domestic (97) followed by unemployed (25), cane famer (24), student (22), and cane cutter (13) (see Appendix V). The highest education levels reported were standard 6 (59), primary (33), standard 5 (31), and 6th Form (26) (see Appendix VI). Some informants (28) indicated that their secondary or retired occupations were directly related to sugar cane farming.

Education Costs

cane organizations (i.e., SIRD and BSCFA)?". Many informants reported that they did not know what the role of the organizations were, these informants were mostly non-sugar cane farmers. Of those that had knowledge of the role of the organizations in the community, the most commonly stated response was that the organizations do not help the community (22). Others indicated that the organizations provide education (21), inexpensive fertilizer (19), help to farmers (15), scholarships (14), control pricing (13), and help to the community (13), as well as negotiate fair trade agreements (14) and fix roads (11) (see Appendix IX). In the next field season, informants will be asked to list the specific impacts that the different sugar cane organizations on the community.

Sugar Cane Price Fluctuation

In the previous field season, farmers were asked what they would do if the price of sugar cane dropped (Hume et al. 2016: 14). The discussion with informants about sugar cane price fluctuation began with the question "How did the sugar cane price drop effect you?". Items with ten or more responses include that the sugar cane prices had no effect on them (84), their wages were affected (59), they had less money for supplies (38), it effected everyone (31), the price for goods increased (17), and there were fewer jobs available (12) (see Appendix X). When informants were asked "How did you respond to the sugar cane price drop?", they responded that they took out loans (30), found another job (27), just accepted it (22), did nothing (21), worked more (13), cut back on spending (11), and planted other agricultural item (10) (see Appendix X). With the current drop in sugar cane prices, informants in the coming field season will be asked how they have responded to the current price drop and what plans they have for the future.

Zika Virus

The Zika virus became a national concern just before the previous field season, so we asked general questions about the disease. When informants were asked "What do you think about the Zika virus?", the informants had a mixed response regarding how concerned they were and their responses to the threat of contracting Zika. The most common responses included: keep yard clean (84), does not know anything about it (62), has heard of it (61), prevention with pesticides (39), concerned (36), not dangerous here (31), avoid mosquitoes (26), be careful with water (25), it is dangerous (24), effects pregnant women (23), hurts children (20), afraid (15), clean empty containers (13), and be careful (10) (see Appendix XI). In the subsequent field season, rather than focusing only on Zika, community members will be asked to speak about their general health concerns to document which are of the most concern to serve as a guide for future research.

Kidney Disease

There has been national interest in kidney disease in Belize, resulting in a recent national survey of chronic kidney disease (Statistical Institute of Belize 2017). When informants were asked "What are the symptoms of kidney disease?", they responded most commonly with back pain (62), kidney stones (20), general pain (20), urination pain (17), edema in the feet (14), and fever (13) (see Appendix XII). The remaining questions were only asked of those informants that self-identified as suffering from kidney disease. When informants were asked "What are the kinds/types of kidney disease?", they responded overwhelmingly kidney stones (32) followed by infection (5), sugar caused/coke/sweet blood (5), diabetes (4), dissolving/cirrhosis (3), renal

When informants were asked "What forces have an influence on production success", they most commonly reported: nature (8), technology (4), economy (2), and the sugar cane factory/ mill (2). When informants were asked "What is meant by growth, why do plants grow?", they most commonly reported: nature (10), people (10), technology (4), and god (2). When informants were asked "Who effects your environment (fields) the most?", they most commonly reported: nature (12), people (5), economy (2), pollution (2), and the sugar cane factory/ mill (2). When informants were asked "When farming, what/who makes things happen?", they most commonly reported: people (10), god (5), and nature (5). When informants were asked "What can humans do about changes in weather?", they most commonly reported: humans have no control (9), reduce air pollution (5), reforestation (3), recycling (3), and water (irrigation/not wasting water) (2). When informants were asked "Can humans/human activity effect Whg4.0102 27[(E6th)-2(e)

Sugar Cane Varieties

agreement on propositional statements of the currently most common sugar cane varieties (BBZ, B79, and B52[blanca]) will be collected to determine the degree to which the information is shared among farmers. Second, farmers will be asked to explain their egocentric network (who and where they receive information) for sugar cane fertilizer, pesticide, and herbicide information.

Conclusion

This report documents the findings from the summer 2016 season of the Ethnographic Field School in Belize. This field season successfully met the goals of collecting ethnographic data on topics suggested by community members and prior research: community development perspectives; effects of sugar cane price fluctuations; knowledge of Zika, kidney disease. Educational costs of children are varied and still of concern to parents. Child labor is a complex

Appendix II

Appendix III:

9.! Spatial Task - Face the informant 90 degrees from prior position. Give informant animals, ask them to place them in the previous order, and note relative/absolute placement. Place three animals on table all facing right. Ask informant to memorize position. Wait at least one minute before proceeding to next step.

10.! Protective gear

- A.! People do not know how dangerous the chemicals are
- B.! The protective gear is uncomfortable (hot, too restrictive)
- C.! The protective gear is too expensive
- D.! I do not know

11! Spatial Task - Face the informant 90 degrees from prior position. Give informant animals, ask them to place them in the previous order, and note relative/absolute placement.

12! Sugar cane varieties- B79-474, BBZ, Blanca, CP26, CP-2086, Pi-a, Bamboo, Brazil, 290, Chalecudo, Purple, Ragna, Chaparo, Q80, B59, BZ-8240, BBZ-8290, and PR

- A.! Easy/hard to cut
- B.! Grows well in highlands
- C.! Grows well in lowlands

U.! What changes have occurred in your work related to the environment? Why are there these changes/variations? Has the weather changed? If so, how?

V.! What can humans do about changes in weather?

W.! Can humans/human activity effect nature/weather/wind/currents?

X.! Species X changes in presence of Y? (e.g., What animals on your farm affect other animals?)

14.! Free Listing

A.! All of the things that they grow on their farm.

Appendix V : Occupations

Count	Current Occupation	*
97	Domestic	
25	Unemployed	
24	Cane farmer	
22	Student	
13	Cane cutter	
12	No response	
10	Teacher	
8	Business owner	
6	Construction worker	
6	Shop owner	
5	Farmer	
5	Retired	
4	Baker	
4	Laborer	
4	Shop employee	
3	BSI employee	
3	Cane truck driver	
3	Domestic, shop owner	
3	Maid	
3	Retired teacher	
3	Tour guide	
2	Cane farmer, vegetable farmer	
2	Carpenter	
2	Housekeeper	
2		

Appendix VI : Education

Count	Highest Level of Education	*
59	Standard 6	
33	Primary	
31	Standard 5	
26		

Appendix VII : Educational Expenses

Count	Educational Expenses	*
69	Books	
62	Uniforms	
48		

Appendix IX : Sugar Cane Organizations

Count	Sugar Cane Organization Roles	*
22	do not help	
21	provide education	
19	provide inexpensive fertilizer	
15	help farmers	

Appendix X : Sugar Cane Price

Count	Effect of Sugar Cane Price Drop	*
84	No effect	
59	Wages effected	
38	Less money for supplies	
31	Effects everyone	
17	Increased price for goods	
12	Less jobs available	
9	Hurt business	
6	Effected schooling	
6	Less stock	
5	Effects whole country	
5	Effects economy	
4	Increased fuel price	
3		

Appendix XI : Zika Virus

Count	Zika Responses *
84	Keep yard clean
62	Does not know anything about it
61	Has heard of it
39	Prevention with pesticides
36	Concerned
31	Not dangerous here
26	Avoid mosquitoes
25	Be careful with water
24	It is dangerous
23	Effects pregnant women
20	Hurts children
15	Afraid
13	Clean empty containers
10	B

Appendix XI I: Kidney Disease Symptoms

6

Count	Kidney Disease Symptoms	*
62	pain - back	
20	kidney - stones	
20	pain - general	
17	urination - pain	
14	edema - feet	
13	fever	
9	vomiting	
8	edema - general	
7	dehydration/thirst	
7	diabetes	
7	urination - dark	
6	kidney - infection	
6	urination - difficultly	

5

Appendix XIII : Kinds/Types of Kidney Disease

Count	Kinds/types of Kidney Disease	*
32	kidney stones	
5	infection	
5	sugar caused/coke/sweet blood	
4	diabetes	
3	dissolving/cirrhosis	
3	renal failure	
2	cancer	
2	parasite/ameba/worms	
1	dengue	
1	hepatitis	

*All responses are listed

Appendix X IV: Kidney Disease Treatments
fl-93u ea-93kscan

Count	Kidney Disease Treatments	*
36	dialysis	
25	medication - herbal/Mayan	
24	medication - prescrip	665 417 15 rere f q 122 665 417 15 re W n 127.92 666 405.12 1

Appendix XV : Kidney Disease Risks

Count	Kidney Disease Risk *
38	Diabetes
38	Drinking alcohol
38	Not drinking enough water
30	None - anyone can get it
16	Age - elderly (50+)
16	Drinking too much sugar (soda)
8	Eating unhealthily (fried/candy/pork/greasy)
7	Smoking
6	Working too much/hard/outdoors
5	Bad water - drinking chlorine (piped water)
5	Family history
4	Age - middle age (25-40)
4	Bad water - well/some brands
4	Using Drugs
4	Women
3	Mestizos
3	Obese
2	Age - children
2	Age - teenagers (around 12)
2	Cancer
2	Chemicals - in water
2	

Appendix XVI : Kidney Disease Causes

Count	Causes of Kidney Disease	*
47	drinking alcohol	
36	not drinking enough water	

Count Her

Appendix XVIII : Pesticides

Count	Pesticides Effective Against Froghoppers
34	Jade 08GR
30	Malathion
24	Tamaron
18	Regent
12	Karate
11	Hongos
11	Sevin
10	Aktera
8	Lorsban
7	Engeo 24, 7 SC
6	Primex
4	Atana
3	Landex

Count	Pesticides Effective Against Froghopper Eggs
29	Jade 08GR
9	Regent
7	Hongos
6	Malathion
4	Tamaron
3	Engeo 24, 7 SC
2	

Count	Pesticides Effective Against Worms
13	

Appendix XIX : Frog hopper Mitigation

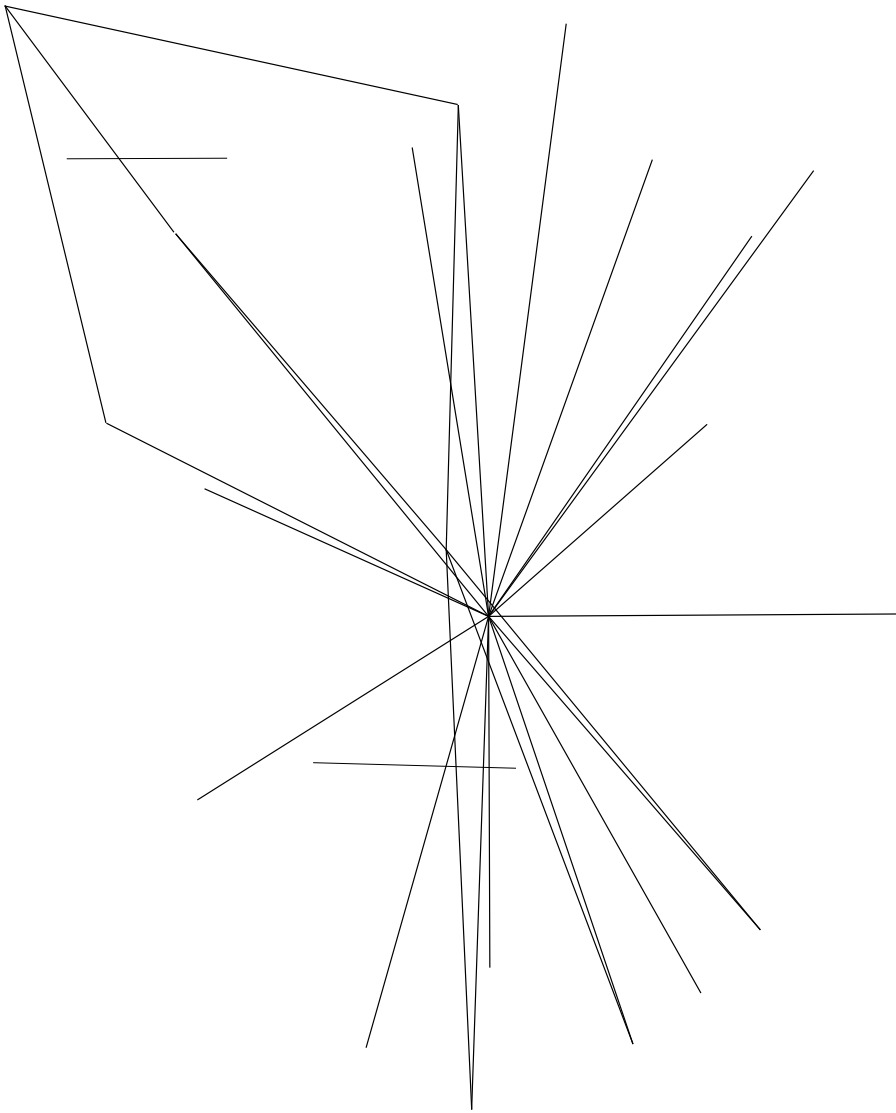
Count	Frog hopper Mitigation
42	Jade (insecticide)
34	Malathion (insecticide)
30	Bug bags
22	Hongos (insecticide)
22	Regent (insecticide)
19	Confidor (insecticide)
19	Unspecified insecticides (whatever the association or SIRDI PProvides)
17	Tamaron (insecticide)
14	Karate (insecticide)
13	Aktera (insecticide)
8	Glue covered posts driven into the ground

Appendix XX : Sugar Cane Varieties

ET Q q 288 593 28 15 re f BT 0 0 0 scn /GS1 gs /TT1 1 Tf 11.04 0 0 11.04 2430 0 11.04 48 Tgs /TT1 1 Tf45 T

Sugar Cane	Cutting	Highlands	Lowlands	Rocky	Sandy	Weight	Maturation	Pests	Hardness	Height	Thickness
Blanca	31	16	15	9	5	-14	-11	8	19	8	-13
CP-2086	-6	8	4	1	2		13	-8	-6	-1	-8
CP-26	-4	10	3	2	2	0	11	-8	-2	-1	-8
BBZ	-31										

Appendix XX I: Sugar Cane Attribute Network



Appendix XXII : Informant/Sugar Cane Network I

Appendix XXIII : Informant/Sugar Cane Network II

Appendix XXIV : Informant/Sugar Cane Network III

Appendix XXV I: Informant/Sugar Cane Network V

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