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Pattern of animal ownership in the Nsukka local government area of the Anambra State in Nigeria

WOSU (L.O.), IBEKWE (H.N.). Profil des propriétaires d'animaux dans le district de Nsukka, État d'Anambra, Nigeria. *Revue Elev. Méd. vét. Pays trop.*, 1990, 43 (2) : 275-279.

Une recherche sur le profil des propriétaires d'animaux dans le district de Nsukka (État d'Anambra), au Nigeria, a montré que 63 p. 100 des familles choisies pour l'enquête possédaient des animaux. Parmi elles, la proportion de propriétaires illettrés, peu instruits ou instruits atteignait respectivement 85,55, 51,36 et 49,14 p. 100. Chez 1 240 familles choisies au hasard, les animaux les plus populaires, par ordre de préférence, étaient les chèvres, les poulets et les chiens. Ces derniers étaient les plus appréciés dans les familles instruites et les chèvres dans celles peu instruites ou illettrées. La valeur économique, l'utilité des animaux et le statut social des familles influençaient le choix des animaux. En général, on notait une tendance à avoir des animaux pour leur valeur économique et utilitaire plutôt que comme animal de compagnie. Ces résultats peuvent se révéler utiles d'un point de vue sociologique, économique et dans un but de planification, et servir aux vétérinaires praticiens et chercheurs. *Mots clés* : Volaille - Caprin - Chien - Animal de compagnie - Comportement humain - Sociologie - Nigeria

INTRODUCTION

Casual remarks by clients at the University Veterinary Teaching Hospital prompted the idea of carrying out this investigation. It was observed that persons of similar social status had similar reasons for keeping their dogs. It was therefore considered interesting to carry out this investigation with various species of animals. The results may be useful for different purposes, sociological, economic, planning and certainly to veterinarians in practice and in research.

MATERIALS AND METHODS

Definition of basic concepts used in the study

Family status : this was represented by the status of the Head of the nuclear family concerned, i.e. the husband in the family.

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Reçu le 21.11.89, accepté le 5.12.89.

Literate family : this was a family where the Head was a University educated person and qualified in a profession which can be found in a University campus, in hospitals etc.

Semi-literate family : this was a family where the Head was simply literate and doing work such as market traders, tradesmen or « businessmen » as seen in Nsukka and in other towns in Nigeria.

Illiterate family : this was a family where the Head was illiterate, usually a farmer as seen in the Nigerian villages.

Information sought in the investigation

- the percentage of the population (all the sampled families) that kept any kind of animal ;
- the choice of animal species which were kept and how this was affected by the family status ;
- the reasons for keeping the animals and how this was related to the family status ;
- the percentage of families of different status that made use of the veterinary services and the reasons why the others did not do so.

Location

Nsukka Local Government Area (LGA) of the Anambra state in Southern Nigeria comprises the University campus, Nsukka town, few other towns and many villages. Nsukka LGA is located within the tropical humid zone with derived savannah vegetation. It is largely a rural community.

Selection of families

The survey covered the whole local government area which was divided into sections for the survey. In each section households/families were numbered according to their status. The families to be questioned were randomly picked up as in a raffle drawn after shaking and mixing up the numbers thoroughly in a container.

Obtaining the information

The information sought was obtained by means of filling out the questionnaires designed for each purpose. Space constraint prevents showing the various formularies used in this study. However, this is clearly indicated by the Tables of results. Altogether 1,240 randomly selected families made up of 350, 440 and 450 literate, semi-literate and illiterate families, respectively, were interviewed. The questionnaires were either filled out by the respondent of the family or by the researcher according to the answers of the family.

Statistical analysis

The results were submitted to statistical analysis using chi-square test to determine the degree of confidence of the results.

RESULTS

They are shown in the following tables.

Table I shows the number of sampled families and the percentage of animal-keeping families according to the social status.

Table II shows the choice of animals kept by families of different social status. The most popular animals in the overall tested population are goats, chickens and dogs, by order of preference. However, the first animal

TABLE I Percentage of families keeping any kind of animals.

	Literate	Semi-literate	Illiterate	Total
Number of sampled families	350	440	450	1 240
Percentage of families keeping:				
Goats	8.57	30.45	66.22	37.25
Dogs	25.14	16.36	4.00	14.35
Chickens	22.86	20.00	59.11	35.00
Rabbits	7.43	5.00	5.33	5.81
Pigs	0.00	4.09	6.67	3.87
Sheep	0.00	0.45	2.22	1.74
Cats	1.71	0.45	0.00	0.65
Guinea fowls	0.57	0.00		0.16
Guinea pigs	1.71	0.45		0.65
Ducks	0.00	1.36		2.42
Turkeys	0.57	0.00		0.16
Pigeons	0.57	1.36		0.65
Cattle	0.00	0.00		0.65

TABLE II Percentage of animal-keeping families and choice of animal species according to social status.

	Literate	Semi-literate	Illiterate	Total
Number of sampled families	350	440	450	1 240
Number and percentage of animal-keeping families	172 (49.14%)* (14%)**	226 (51.36%)* (18%)**	382 (85.55%)* (31%)**	780 (63%)*
Percentage of families keeping:				
Goats	17.44	59.29	77.60	59.07
Dogs	51.16	31.85	4.68	22.76
Chickens	46.50	38.94	69.27	55.49
Rabbits	15.12	9.73	6.25	9.20
Pigs	0.00	7.96	7.81	6.14
Sheep	0.00	0.88	2.60	2.81
Cats	3.48	0.88	0.00	1.02
Guinea fowls	1.62	0.00	0.00	0.25
Guinea pigs	3.48	0.88	0.00	1.02
Ducks	0.00	2.65	5.73	3.84
Turkeys	1.62	0.00	0.00	0.25
Pigeons	1.62	2.65	0.00	1.02
Cattle	0.00	0.00	2.08	1.02

* Percentage of animal-keeping families in each social status.

** Percentage of animal-keeping families of different social status (versus total number of sampled families).

The percentages corresponding to the three most popular animals chosen by families of different social status are bold, the percentages of the least popular animals are written in italics.

TABLE III Number of animals per family.

	Literate	Semi-literate	Illiterate	Total
Number of sampled families	350	440	450	1 240
Number of animals per family				
Goats	0.30	1.13	3.12	1.62
Dogs	0.26	0.18	0.10	0.18
Chickens	8.04	3.25	6.76	5.98
Rabbits	0.29	0.12	0.48	0.30
Pigs	0.00	0.19	0.25	0.16
Sheep	0.00	0.03	0.07	0.04
Cats	0.01	0.03	0.00	0.01
Guinea fowls	0.16	0.00	0.00	0.04
Guinea pigs	0.11	0.02	0.00	0.03
Ducks	0.00	0.04	0.07	0.04
Turkeys	0.06	0.00	0.00	0.02
Pigeons	0.11	0.04	0.00	0.05
Cattle	0.00	0.00	0.06	0.02

The three highest ratios of the number of animals per family are bold.

ÉCONOMIE DE L'ÉLEVAGE

TABLE IV Reasons for keeping animals according to social status.

Literate	Goats	Dogs	Chickens	Rabbits	Pigs	Sheep	Cats	Guinea pigs	Pigeons	Cattle
Total number of families that answered	46	82	109	27	6		4	5	5	
Money	29 (60.1)		40 (36.7)	2 (7.4)	6 (100)					
Food	11 (24)		63 (57.8)	25 (92.6)						
Security		64 (78)								
Hunting										
Experimental purpose								5 (100)		
Pleasure	6 (13)	18 (22)	6 (5.5)				4 (100)		5 (100)	
Illiterate	Goats	Dogs	Chickens	Rabbits	Pigs	Sheep	Cats	Guinea pigs	Pigeons	Cattle
Total number of families that answered	269	36	223	4	26	8	2			8
Money	269 (100)		195 (87.4)	2 (50)	26 (100)	8 (100)				
Food										
Security		5 (14)	28 (12.6)	2 (50)			2 (100)			
Hunting		31 (86)								
Experimental purpose										
Pleasure			6 (5.5)							
Semi-literate	Goats	Dogs	Chickens	Rabbits	Pigs	Sheep	Cats	Guinea pigs	Pigeons	Cattle
Total number of families that answered	135	56	91	30	38	4	1	3	2	
Money	113 (83.7)		53 (58.2)	11 (36.7)	30 (79)	4 (100)				
Food	15 (11.1)		38 (42)	19 (63.3)	8 (21)			3 (100)		
Security		47 (81.1)								
Hunting										
Experimental purpose							1 (100)			
Pleasure	7 (5.2)	9 (16)							2 (100)	

The most popular reasons for keeping animals are bold. Percentages are between parentheses.

being chosen in the literate families is the dog, whereas semi-literate and illiterate families prefer goats. The second species of animals being chosen is chickens in any kind of families. The third most popular animals are goats, dogs and pigs in the literate, semi-literate and illiterate families, respectively.

Table III shows that the highest number of animals per family in the overall tested population is obtained with chickens, goats and rabbits, by order of preference. Such a distribution is found in literate and illiterate families, whereas semi-literate families keep more pigs than rabbits.

Table IV shows the most popular reasons for keeping animals according to the social status. The three main reasons are money, food and pleasure, except in the illiterate families in which animals are kept not for pleasure, but for hunting. The first reason for keeping animals given by all families is economic. However, the second reason for keeping animals is pleasure in the literate families whereas it is food in the semi-literate or illiterate ones. The third reason given by families is food (literate families), pleasure (semi-literate families), hunting (illiterate families).

The data of table V show that the use of veterinary services depends on the social status of the families. Literate families are those who use veterinary services, whereas illiterate families do not because of economic reasons.

Statistical analysis using chi-square test showed with 95 % confidence that ownership of animals was influenced by the family status. However, there was no significant statistical relationship between the family status and the number of animals kept. The correlation between the types of animals kept and the positive response to veterinary services was found to be $r = 0.72$ ($P = 0.05$).

TABLE V Use of veterinary services according to the social status of the families.

	Literate	Semi-literate	Illiterate
Number of animal-keeping families	172	226	382
Percentage of families using veterinary services	81.3	57.1	25.0
Reasons for not using veterinary services :			
Ignorance	0.0	4.15	35
No money	0.0	20.6	50
No need (animals not sick)	100	75.25	15

DISCUSSION

Nsukka Local Government Area (LGA) is very similar to most other rural LGAs of Southern Nigeria except those where some Fulani have settled their cattle. In every LGA of Southern Nigeria there are literate, semi-literate and illiterate families as defined in this study. The study gives a good idea of the pattern of animal ownership in the part of the country where Fulani cattle are not settled. It should be noted that horses and other animals not mentioned here are not common in or native of Southern Nigeria. The most important factors that determine the ownership pattern of animals have appeared to be in the following order :

- the type of animal that can be accommodated or housed by the family ;
- the status of the family keeping the animals ;
- the utility use of the animal ;
- fancy for the animal as pet.

Selection of the families was done by a strictly controlled random sampling to avoid any bias. On the whole, 63 % of the families in the tested population kept animals. Of the literate, semi-literate and illiterate families 49.14, 51.36 and 85.55 %, respectively, kept animals (table II). The most popular animals kept in the tested population were goats, chickens and dogs in this order of preference. However, this order was affected by the social status of the families. Popularity of animals varied with the types of families, individuals or groups of individuals in the community (2). In agreement with this, it was shown that literate and semi-literate families kept dogs as pets and actually did so mainly for security, which reflects a sociological need. Illiterate families kept dogs mainly for hunting (table IV). Cats which are very popular in developed countries, ranked amongst the least popular animals, even among the literate families (table II). Here, they were kept mainly for their utility use in hunting down rats (rodents) in the house. It is not surprising that chickens had the highest ratio of number animals per family because their number can be accommodated by a family. However, it is noteworthy that the highest ratio i.e. 8.04 (table III), was found in the literate families indicating the increasing popularity of backyard poultry keeping by intensive methods among the literate families. Table III also revealed the popularity of goats being in the second place in all family types. Indeed, table II shows goats as the most popular animal in the tested population.

This may explain why *peste des petits ruminants* (PPR) is regarded as the most economically detrimental disease of small ruminants in the humid West Africa (1). Indeed, the disease does not only result in a

high mortality and morbidity in goats, it also affects many families.

The main reasons for keeping animals were for money, food and security. OMAMEGBE (3) reported that illiterate families kept animals mainly for economic and utilitarian reasons.

Ignorance and veterinary charges appeared to account for the non use of veterinary services. However, experience showed that this was rather due to inadequacy of veterinary services than to veterinary charges. The illiterate farmers sought veterinary services after having experienced the benefits of them. It is noteworthy that veterinarians and veterinary clinics are not adapted and are often located far from the villages. Consideration by veterinarians of cost benefits to the farmer will enhance the popularity of veterinary services. With 75 % of illiterate families and 42.9 % of semi-literate families not making use of veterinary services (table V) there appears to be plenty of room for expansion-extension of veterinary services in the community.

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Investigation of the pattern of animal ownership in the Nsukka local government area of the Anambra State in Southern Nigeria, revealed that 63.00 % of all the sampled families (i.e. the tested population) kept animals. In this population, the percentage of animal owners in the illiterate, semi-literate and literate families was 85.55, 51.36 and 49.14 % respectively. One thousand two hundred and forty randomly chosen families were sampled in this study. In the tested population, goats, chickens and dogs were the most popular animals in this order of preference. Dogs were most popular in the literate families and goats in the semi-literate and illiterate families. The economic value and utility of the animals and the social status of the families influenced the choice of animals. Generally there was a tendency towards keeping animals for their economic value and utility rather than as pets. These results may be useful for sociological, economic and planning purposes and certainly to veterinarians in practice and in research. *Key words* : Poultry - Goat - Dog - Pet - Human behaviour - Sociology - Nigeria.

This investigation is useful for different purposes. Sociologists and general public will find the sociological attitudes for animals of interest. The distribution of animals in the population will interest planners and policy makers. Extension of the method used in this study can lead to determining the livestock census of an area. The study would be of special interest to Veterinarians in research, administration and in practice.

ACKNOWLEDGEMENTS

The authors wish to acknowledge the cooperation of all the families who answered our questionnaires. We especially thank the staff of the Veterinary division of the Ministry of Agriculture, Nsukka, for their help in the field. We deeply appreciate the secretarial help of MM EMELOGU D.N. and ASADU E U. of the Department of Veterinary Medicine.

WOSU (L.O.), IBEKWE (H.N.). Perfil de los propietarios animales en el distrito de Nsukka, estado de Anambra, Nigeria. *Revue Élev. Méd. vét. Pays trop.*, 1990, 43 (2) : 275-279.

El estudio del perfil de los propietarios de animales en el distrito de Nsukka, estado de Anambra, Nigeria, demostró que 63 p. 100 de las familias encuestadas poseen animales. En esta población, el porcentaje de propietarios letrados, semi-letrados y letrados fue de 85.55, 51.36 y 49.14 p. 100 respectivamente. Se entrevistaron mil doscientas cuarenta familias, escogidas al azar. En orden de importancia, los animales más comunmente encontrados en la población estudiada fueron cabras, pollos y perros. Los perros fueron más comunes en las familias letradas y las cabras en las familias iletradas y semi-letradas. El valor económico y utilitario de los animales, así como el estatus social de las familias influenció la escogencia de éstos. En general hubo una tendencia a mantener animales de compañía. Estos resultados pueden ser útiles por razones sociológicas, económicas y de planificación, así como para la práctica e investigación veterinaria. *Palabras claves* : Pollo - Cabra - Perro - Animal de compañía - Comportamiento humano - Sociología - Nigeria.

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