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### A CHEAP METHOD OF DIVIDING LARGE PENS FOR BREEDING RAPTORS

by John Campbell Box 130 Black Diamond, Alberta, Canada

If you wish to separate a pair of birds over winter or to divide a large pen into smaller ones, we found that inexpensive canvas panels were excellent for this purpose.

The panels can be cut to size and nailed to the ceiling, floor, and walls with narrow strips of plywood and small nails. Small, weighted flaps covered the feed holes, and two 20-inch-long zippers were sewn about 2 feet apart as a door for each pen. These doors were used for changing bath water and entering pens.

These panels are inexpensive and fast to assemble and take down. They can be reused numerous times and are easy to wash and store when not in use. They can be left up as permanent partitions or put up and removed as required.

We have used these panels to winter female Peregrines and Merlins with very satisfactory results.

# TABLE 1

Species	Ν	Methods				Fa	_	Reference					
			Т	w	F	M	I	BS	С	S	G	Other	
Buteo jamaicensis	5	Food Con.									٠		Olendorff 1971
Buteo swainsoni	4	"									۵		"
Buteo regalis	5	"									٥		"
Buteo platypterus	7	Food Bal.						٥				Sex, EE	Mosher & Matray 1974
Accipiter gentilis	1	Food Con.										EE	Fevold & Craighead 1958
Aquila chrysaetos	3	Food Con.										EE	"
Falco sparverius	3	O2/CO2							٥				Gatehouse & Markham 1970
"	10	Temp.	٥										Bartholomew & Cade 1957
"	-	O2 & D2018	٥									HR	Gessaman unpubl.
Accipiter nisus												SMR	Giaja & Males 1928
Falco mexicanus	2	Lin. M.									٥		Fowler 1931
Falco peregrinus	8	Temp.	۵										Mosher & White unpubl.

## SUMMARY OF RAPTOR ENERGETICS STUDIES

Table 1 cont.

Species	N	N Methods				Fa		Reference					
			Т	w	F	М	I	BS	С	s	G	Other	
Geranoaetus melanoleucus	,											SMR	
mentmienen	•												Benedict & Fox 1927
Gypaetus barbatus												SMR	"
Vultur gryphus												SMR	"
Aegolius acadicus	1	$\Omega_{2}/\Omega_{2}$							٠				Catabayaa &
acaancus	1	02/002											Markham 1970
"	2	O2 & Temp.	۰					٠				RWL	Ligon 1969
"	2	Food Bal. & O2							٥	¢	¢	EE	Graber 1962
"			٥				٠					SMR	Collins 1963
Otus asio	1	O2/CO2							٠				Gatehouse & Markham 1970
Otus asio	2	O2 & Temp.	٥					¢				RWL	Ligon 1969
Otus tricopsis	3	"	۰					۰				"	"
Glaucidium gnoma	3	O2 & Temp.	٠					۰				RWL	Ligon 1969
Micrathene whitneyi	3	"	٥					۰				"	"
Asio flammeus	1	Food Bal. & O2							٥	٠	¢	EE	Graber 1962
Asio otus	1	"							۰	۰	٥	EE	"
Athene cunicularia	29	O2 & Temp.	٥						٠			RWL & SR	Coulombe 1970

Species	N	Methods				Fa		Reference					
			Т	w	F	М	I	BS	С	s	G	Other	
Otus flammeolus	2	O2										RWL	Mosher & Woffinden unpubl.
Nyctea scandiaca	4	O2/CO2 & Food Bal.	٠	o								Insul.	Gessaman 1972
Bubo virginianus												SMR	Benedict & Fox 1927
Strix aluco												SMR	Herzog 1930
Tyto alba		O2 Food Bal.	٠					ø				EE, Insul	Johnson 1974
Surnia ulula	1	O2	٠					۰				SMR	Johnson & Collins 1975
Glaucidium cuculoides	1	O2	۰					۰				SMR	"

Table 1 cont.

Note the following abbreviations: T-temperature, W-wind, F-flight, M-molt, I-incubation, BS-body size, Ccircadien rhythms, S-seasonal rhythms, G-growth, SMR-standard metabolic rate, RWL-respiratory water loss, EE-existence energy, SR-surface radiation, Insul.—insulation, HR-heart rate, Food Cons.-food consumption, Food Bal.-food balance calorimetry, Temp.-temperature measurement, Lin M.-linear measurements.

# **BALLOT FOR ELECTION OF BOARD OF DIRECTORS**

The ballot is included as a separate item in this mailing. Please note that ballots are to be returned to the secretary, Dr. Don Johnson. Although the return deadline is given as July 1, ballots will be accepted up to the end of August, owing to the late mailing. Please vote!

### **NEW EDITOR OF RAPTOR RESEARCH**

After several years of faithful service, Dr. Richard Olendorff (aka "Butch") has asked to be relieved of the editorial burden. Dr. Clayton White of the Department of Zoology, Brigham Young University, has agreed to serve as the new editor, effective immediately. On behalf of the board of directors and membership, we extend our sincere appreciation to Butch and our best wishes to Clay for a successful tenure as edi-, tor.