

Model (Red means implemented in RMark)	Code	RMark Example	Parameters									
Live Recaptures (CJS)	Live	?dipper; ?example.data	Phi	p								
Dead Recoveries	Dead		S	r								
Both Live and Dead Encounters – Burnham	Both		S	p	r	F						
Known Fate	Known	?Blackduck	S									
Closed Population Estimation	Closed	?edwards.eberhardt	p	c	N							
BTO Dead Recoveries and Unknown Ringings	BTO		S									
Robust Design with Closed Population Estimation	Robust	?robust	S	Gamma''	Gamma'	p	c	N				
Both Live and Dead Encounters – Barker	Barker		S	p	r	R	R'	F	F'			
Multi-state with Live Recaptures	Multistrata		S	p	Psi							
Brownie et al. Dead Recoveries	Brownie		S	f								
Jolly-Seber Lambda – Burnham	Jolly		Phi	p	Lambda	N						
Huggins Closed Population Estimation	Huggins	?edwards.eberhardt	p	c								
Robust Design with Huggins' Estimator	RDHuggins	?robust	S	Gamma''	Gamma'	p	c					
Pradel Recruitment Only	Pradel		Gamma	p								
Pradel Survival and Seniority	PradSen		Phi	p	Gamma							
Pradel Survival and Lambda	PradLambda		Phi	p	Lambda							
Pradel Survival and Recruitment	PradRec		Phi	p	f							
Barker Live and Dead with Closed Robust Design	RDBarker		S	r	R	R'	Gamma''	Gamma'	F	p	c	N
POPAN	POPAN	?dipper	Phi	p	pent	N						
Virtual Population Analysis (VPA)	VPA		M	F								
Multi-state with Live and Dead Encounters	MSLiveDead		S	p	Psi	r						
Closed Captures with Heterogeneity	HetClosed	?edwards.eberhardt	pi	p	N							
Full Closed Captures with Heterogeneity	FullHet	?edwards.eberhardt	pi	p	c	N						
Nest Success	Nest	?killdeer; ?mallard	S									
Huggins' Closed Captures with Heterogeneity	HugHet	?edwards.eberhardt	pi	p								
Huggins' Full Closed Captures with Heterogeneity	HugFullHet	?edwards.eberhardt	pi	p	c							
Occupancy Estimation with Detection < 1	Occupancy	?salamander; ?weta	p	Psi								
RD Occupancy Estimation with psi, epsilon.	RDOccupPE	?RDSalamander	Psi	Epsilon	p							
RD Occupancy Estimation with psi, gamma.	RDOccupPG	?RDOccupancy; ?RDSalamander	Psi	Gamma	p							
RD Occupancy Estimation with psi(1), gamma, epsilon.	RDOccupEG	?RDSalamander	Psi	Epsilon	Gamma	p						
Link-Barker Jolly-Seber	LinkBarker		Phi	p	f							
Open Robust Design Multi-state	ORDMS		S	Psi	pent	Phi	p					
Closed Robust Design Multi-state	CRDMS	?crdms	S	Psi	p	c	N					
Huggins' Closed Robust Design Multi-state	HCRDMS		S	Psi	p	c						
Heterogeneity Closed Robust Design Multi-state	HetRDMS		S	Psi	pi	p	N					
Full Heterogeneity Closed Robust Design Multi-state	FHetRDMS		S	Psi	pi	p	c	N				
Huggins' Het. Closed Robust Design Multi-state	HHetRDMS		S	Psi	pi	p						
Huggins' Full Het. Closed Robust Design Multi-state	HFHetRDMS		S	Psi	pi	p	c					
Robust Design with Heterogeneity Estimator	RDHet	?robust	S	Gamma''	Gamma'	pi	p	N				
Robust Design with Full Heterogeneity Estimator	RDFullHet		S	Gamma''	Gamma'	pi	p	c	N			
Robust Design with Huggins' Het. Estimator	RDHHet		S	Gamma''	Gamma'	pi	p					
Robust Design with Huggins' Full Het. Estimator	RDHFHet		S	Gamma''	Gamma'	pi	p	c				
Barker Live and Dead with Huggins' Robust Design	RDBarkHug		S	r	R	R'	Gamma''	Gamma'	F	p	c	
Barker Live and Dead with Heterogeneity Robust Design	RDBarkHet		S	r	R	R'	Gamma''	Gamma'	F	pi	p	N
Barker Live and Dead with Full Het. Robust Design	RDBarkFHet		S	r	R	R'	Gamma''	Gamma'	F	pi	p	c
Barker Live and Dead with Huggins' Het. Robust Design	RDBarkHHet		S	r	R	R'	Gamma''	Gamma'	F	pi	p	
Barker Live and Dead with Huggins' Full Het. Robust Design	RDBarkHFFhet		S	r	R	R'	Gamma''	Gamma'	F	pi	p	c
Lukacs Young Survival from Marked Adults	LYSMA		Phi	p								
Robust Design Pradel Seniority Closed Population Estimation	RDpGClosed		Phi	Gamma	p	c	N					
Robust Design Pradel Seniority Huggins' Closed Populations	RDpGHuggins		Phi	Gamma	p	c						
Robust Design Pradel Seniority Closed Captures with Heterogeneity	RDpGHet		Phi	Gamma	pi	p	N					
Robust Design Pradel Seniority Full Closed Captures with Het.	RDpGFullHet		Phi	Gamma	pi	p	c	N				
Robust Design Pradel Seniority Huggins' Closed Captures with Het.	RDpGHugHet		Phi	Gamma	pi	p						
Robust Design Pradel Seniority Huggins' Full Closed Captures with Het.	RDpGHugFullHet		Phi	Gamma	pi	p	c					
Robust Design Pradel Lambda Closed Population Estimation	RDpLCLosed		Phi	Lambda	p	c	N					
Robust Design Pradel Lambda Huggins' Closed Populations	RDpLHuggins		Phi	Lambda	p	c						
Robust Design Pradel Lambda Closed Captures with Heterogeneity	RDpLHet		Phi	Lambda	pi	p	N					
Robust Design Pradel Lambda Full Closed Captures with Het.	RDpLFullHet		Phi	Lambda	pi	p	c	N				
Robust Design Pradel Lambda Huggins' Closed Captures with Het.	RDpLHugHet		Phi	Lambda	pi	p						
Robust Design Pradel Lambda Huggins' Full Closed Captures with Het.	RDpLHugFullHet		Phi	Lambda	pi	p	c					
Robust Design Pradel Recruitment Closed Population Estimation	RDpdfClosed		Phi	f	p	c	N					
Robust Design Pradel Recruitment Huggins' Closed Populations	RDpdfHuggins		Phi	f	p	c						
Robust Design Pradel Recruitment Closed Captures with Heterogeneity	RDpdfHet		Phi	f	pi	p	N					
Robust Design Pradel Recruitment Full Closed Captures with Het.	RDpdfFullHet		Phi	f	pi	p	c	N				
Robust Design Pradel Recruitment Huggins' Closed Captures with Het.	RDpdfHugHet		Phi	f	pi	p						
Robust Design Pradel Recruitment Huggins' Full Closed Captures with Het.	RDpdfHugFullHet		Phi	f	pi	p	c					
Open Robust Design Pradel Multi-state	ORDPdMS		S	Psi	Gamma	pent	Phi	p				
Huggins Closed Robust Design Multi-state with State Probabilities	CRDMSOHug		S	Psi	Omega	p	c					
Huggins Heterogeneity Closed Robust Design Multi-state with State Probabilities	CRDMSOHet		S	Psi	Omega	pi	p					
Huggins Full Heterogeneity Closed Robust Design Multi-state with State Probabilities	CRDMSOFHet		S	Psi	Omega	pi	p	c				
Occupancy Heterogeneity Estimation with Detection < 1	OccupHet	?salamander	pi	p	Psi							

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