

Supplementary material

Appendix 1

Table A1. Annual survivorship of willow flycatchers derived from the breeding grounds in Arizona, USA, and wintering grounds in Costa Rica, 1999–2003. Apparent survival and detection probability estimates were calculated using maximum likelihood estimates in Program MARK.

Location	Time period	Sample size	Annual		Detection	
			survivorship (%)	95% C.I. (%)	probability (%)	95% C.I. (%)
Breeding grounds						
	1999 to 2000	197	56	50–63	93	86–97
	2000 to 2001	241	66	59–72	84	76–89
	2001 to 2002	264	73	66–80	62	54–69
	2002 to 2003	282	67	61–73	77	70–83
	Average	–	66	64–68	77	74–79
Wintering grounds						
	1999/2000 to 2000/2001	39	72	60–81	95	87–98
	2000/2001 to 2001/2002	41	54	43–65	95	87–98
	2001/2002 to 2002/2003	33	69	56–80	95	87–98
	Average	–	65	59–70	95	87–98

Table A2. Within-season monthly and seasonal estimates of survivorship and detection probability, 1999–2003, for willow flycatcher breeding grounds (Arizona, USA) and wintering grounds (Costa Rica). Monthly estimates are maximum likelihood estimates from Program MARK. Seasonal estimates were calculated assuming an average of three months on the breeding grounds and six months on the wintering grounds.

Location	Time period	Sample size	Monthly estimates (%)		Seasonal estimates (%)			
			Survivorship	95% C.I.	Survivorship	95% C.I.	Detection probability	95% C.I.
Breeding season								
	1999	197	100	96–100	100	88–100	86	80–90
	2000	241	99	85–100	97	61–100	89	85–92
	2001	264	97	91–99	91	75–97	84	79–88
	2002	282	100	100–100	100	100–100	60	56–65
	2003	301	100	100–100	100	100–100	79	76–82
	Average	–	99	96–100	97	89–99	78	77–80
Winter season								
	1999/2000	39	96	93–98	81	65–90	100	100–100
	2000/2001	41	100	98–100	100	94–100	82	68–97
	2001/2002	33	98	93–100	89	63–97	91	78–96
	Average	–	98	95–99	88	77–94	97	92–99