



Status of the Web-Based Telemetry Database

Kim Holland & Carl Meyer

JIMAR & HIMB



Web-Based Telemetry Database

Goals:

Extract information from aquatic telemetry publications

Create web-based searchable telemetry database





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[Movement patterns of large **bigeye tuna**\(*Thunnus obesus*\) in the open ocean, determined using ...](#)

L Dagorn, P Bach, E Josse - *Marine Biology*, 2000 - [springerlink.com](#)

... **Track** dates and estimated @sh weight, path length, ground speed and di@usion distance for four **bigeye tuna** equipped with ultrasonic depth-sensitive ...

[Cited by 48](#) - [Web Search](#) - [csa.com](#)

[Horizontal movements of **bigeye tuna**\(*Thunnus obesus*\) near Hawaii determined by Kalman filter analysis ...](#)

JR Sibert, MK Musyl, RW Brill, J Sibert - *Fisheries Oceanography*, 2003 - [blackwell-synergy.com](#)

... from tracking data that estimates a 'most probable' **track**, geolocation errors ... of this paper is to explore the horizontal movements of **bigeye tuna** (*Thunnus obesus* ...

[Cited by 14](#) - [Web Search](#) - [ingentaconnect.com](#) - [soest.hawaii.edu](#) - [soest.hawaii.edu](#)

[Environmental preferences of yellowfin **tuna**\(*Thunnus albacares*\) at the northern extent of its range](#)

BA Block, JE Keen, B Castillo, H Dewar, EV Freund, ... - *Marine Biology*, 1997 - [springerlink.com](#)

... of Tunas 9401, 9402 and 9403, illustrating current pattern measured along each **track** ... 1990), blue sharks (Carey and Scharold 1990), and **bigeye tuna** (Holland et ...

[Cited by 43](#) - [Web Search](#) - [tunaresearch.org](#) - [csa.com](#)

[Simultaneous observations of **tuna** movements and their prey by sonic tracking and acoustic surveys](#)

E Josse, P Bach, L Dagorn - *Hydrobiologia*, 1998 - [kluweronline.com](#)

... fish were recorded with a second recording unit using the VEMCO **TRACK** software. ... of a **tuna** school, essentially composed of juve- nile **bigeye tuna** (*Thunnus obesus* ...

[Cited by 39](#) - [Web Search](#) - [springerlink.com](#) - [ingentaconnect.com](#)

[Horizontal movements and depth distribution of large adult yellowfin **tuna**\(*Thunnus albacares*\) near ...](#)

RW Brill, BA Block, CH Boggs, KA Bigelow, EV ... - *Marine Biology*, 1999 - [springerlink.com](#)

... vertical movements of small yellow@n and **bigeye** tunas, large adult yellow@n **tuna**,

Microsoft Access

File Edit View Insert Format Records Tools Window Help 7132004 Adobe PDF

Type a question for help

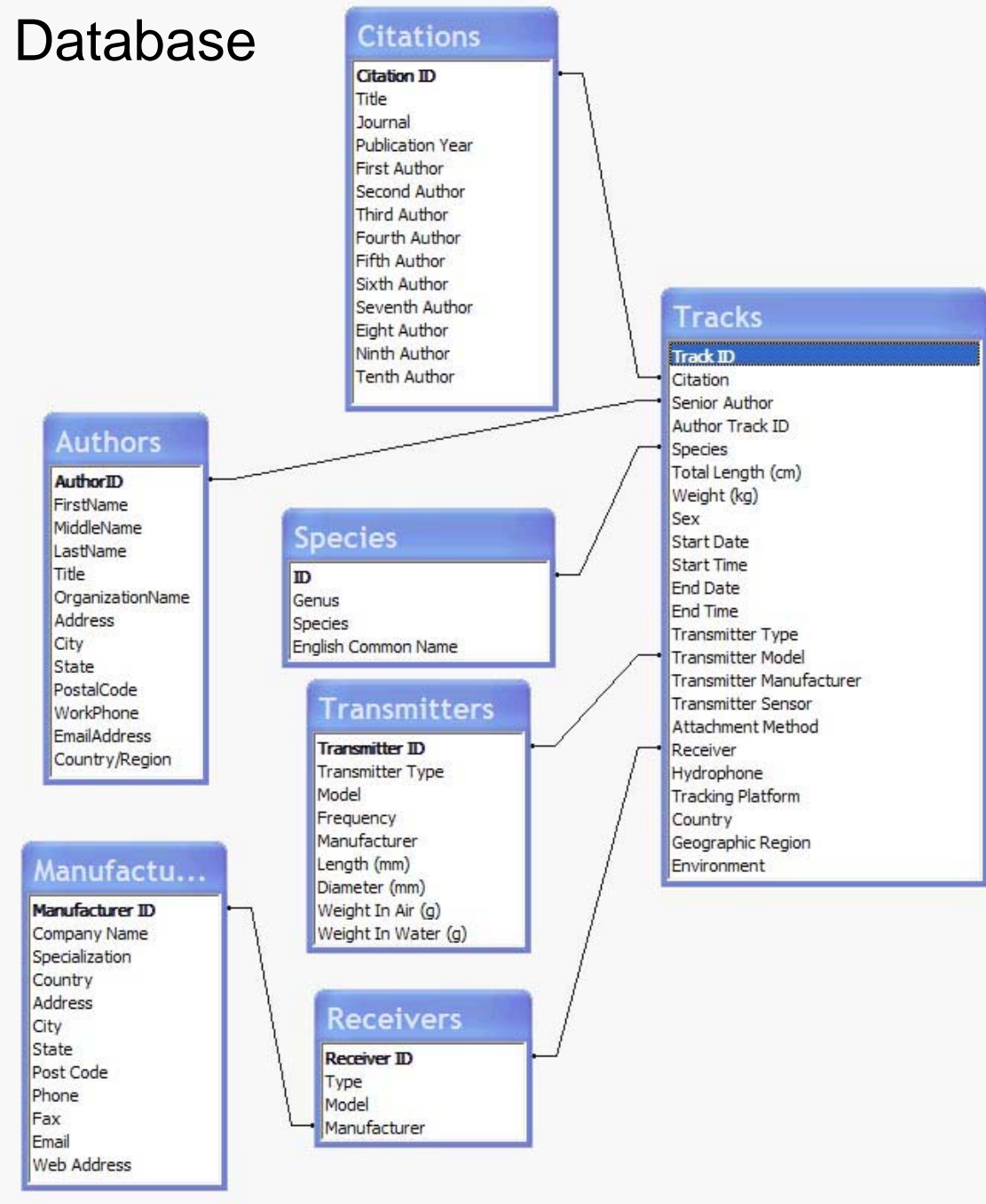
Tracks

Citation	<input type="text"/>	Transmitter Type	<input type="text"/>
Senior Author	<input type="text"/>	Transmitter Model	<input type="text"/>
Author Track ID	<input type="text"/>	Transmitter Manufacturer	<input type="text"/>
Species	<input type="text"/>	Transmitter Sensor	<input type="text"/>
Size (cm)	<input type="text"/>	Attachment Method	<input type="text"/>
Size Code	<input type="text"/>	Receiver	<input type="text"/>
Weight (kg)	<input type="text"/>	Hydrophone	<input type="text"/>
Sex	<input type="text"/>	Tracking Platform	<input type="text"/>
Tracking Method	<input type="text"/>	Country	<input type="text"/>
Start Date	<input type="text"/>	End Date	<input type="text"/>
Start Time	<input type="text"/>	End Time	<input type="text"/>
Tracking Span (Days)	<input type="text" value="0.0"/>	Geographic Region	<input type="text"/>
Active Tracking Duration (h)	<input type="text" value="0.0"/>	Environment	<input type="text"/>
Distance Travelled (km)	<input type="text" value="0.000"/>	Habitats	<input type="text"/>
Area Covered (m2)	<input type="text" value="0.000"/>		

Record: of 313

Form View

Step 1. Create Relational Database



Step 2 - Data Harvesting

Tracks

Citation	Holland et al. 1999	Transmitter Type	Ultrasonic
Senior Author	Holland KN	Transmitter Model	V16
Author Track ID	8804	Transmitter Manufacturer	Vemco
Species	Indo-Pacific blue marlin	Transmitter Sensor	Temperature & Pressure
Total Length (cm)	0	Attachment Method	External - Harpoon/Dart
Weight (kg)	60	Receiver	VR60
Sex	Unknown	Hydrophone	VH10
Start Date	8/11/1988	Tracking Platform	Kaahele'ale
Start Time	1:10:00 PM	Country	Hawaii (USA)
End Date	8/13/1988	Geographic Region	Pacific
End Time	7:10:00 AM	Environment	Pelagic

Record: 1 of 1

- Pelagic
- Pelagic
- Coastal
- River
- Lake

Step 3 – Query Construction

Enable searches based on track attributes;

Simple -

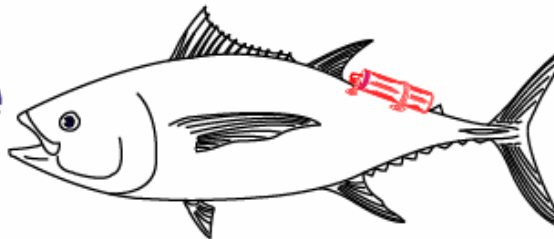
Show BE tuna tracks

Complex -

Show YF tuna tracks > 96 h duration, in Indian Ocean, using dart-attached ultrasonic transmitter manufactured by manufacturer other than Vemco

TrackBase

Simple Search



Common Name

(e.g. Bigeye Tuna)

Scientific Name

Genus (e.g. Thunnus)

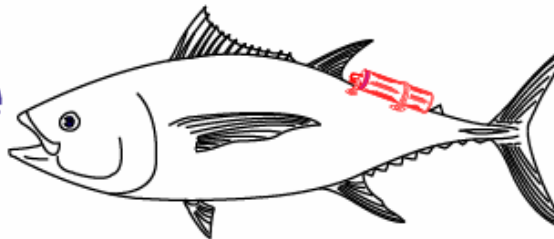
Species (e.g. obesus)

Show Details (Check details to be displayed in results table)

Short Citation	<input type="checkbox"/>	Tracking Method	<input type="checkbox"/>	Transmitter Type	<input type="checkbox"/>	Country	<input type="checkbox"/>
Track ID	<input type="checkbox"/>	Start Date	<input type="checkbox"/>	Transmitter Model	<input type="checkbox"/>	Geographic Region	<input type="checkbox"/>
Species	<input type="checkbox"/>	End Date	<input type="checkbox"/>	Transmitter Maker	<input type="checkbox"/>	Environment	<input type="checkbox"/>
Size (cm)	<input type="checkbox"/>	Start Time	<input type="checkbox"/>	Transmitter Sensor	<input type="checkbox"/>	Habitats	<input type="checkbox"/>
Size Code	<input type="checkbox"/>	End Time	<input type="checkbox"/>	Attachment Method	<input type="checkbox"/>		
Weight (kg)	<input type="checkbox"/>	Track Span (days)	<input type="checkbox"/>	Receiver	<input type="checkbox"/>		
Sex	<input type="checkbox"/>	Active Track (h)	<input type="checkbox"/>	Hydrophone	<input type="checkbox"/>		
		Distance Travelled (km)	<input type="checkbox"/>	Tracking Platform	<input type="checkbox"/>		
		Area Covered (km ²)	<input type="checkbox"/>				

TrackBase

Simple Search



Common Name

contains (e.g. Bigeye Tuna)

Scientific Name

Genus is (e.g. Thunnus)

Species is (e.g. obesus)

Show Details (Check details to be displayed in results table)

- | | | | |
|--|--|--|--|
| Short Citation <input checked="" type="checkbox"/> | Tracking Method <input checked="" type="checkbox"/> | Transmitter Type <input type="checkbox"/> | Country <input type="checkbox"/> |
| Track ID <input checked="" type="checkbox"/> | Start Date <input type="checkbox"/> | Transmitter Model <input checked="" type="checkbox"/> | Geographic Region <input type="checkbox"/> |
| Species <input checked="" type="checkbox"/> | End Date <input type="checkbox"/> | Transmitter Maker <input type="checkbox"/> | Environment <input type="checkbox"/> |
| Size (cm) <input type="checkbox"/> | Start Time <input type="checkbox"/> | Transmitter Sensor <input checked="" type="checkbox"/> | Habitats <input type="checkbox"/> |
| Size Code <input checked="" type="checkbox"/> | End Time <input type="checkbox"/> | Attachment Method <input checked="" type="checkbox"/> | |
| Weight (kg) <input type="checkbox"/> | Track Span (days) <input checked="" type="checkbox"/> | Receiver <input type="checkbox"/> | |
| Sex <input type="checkbox"/> | Active Track (h) <input type="checkbox"/> | Hydrophone <input type="checkbox"/> | |
| | Distance Travelled (km) <input type="checkbox"/> | Tracking Platform <input type="checkbox"/> | |
| | Area Covered (km ²) <input type="checkbox"/> | | |

Simple Search Results “Bigeye Tuna”

Show tracks by species : Select Query

	Species	Author Track ID	Size (cm)	Tracking Method	Tracking Span (Days)	Transmitter Model	Transmitter Sen	Attachment Method	Short Citation
▶	Bigeye tuna	BE8205	74.5	Active tracking - continuous	1.0	V16P	Pressure	External - Wire/cable ties	Holland et al 1990a
	Bigeye tuna	BE8401	57.0	Active tracking - continuous	1.1	V16P	Pressure	External - Wire/cable ties	Holland et al 1990a
	Bigeye tuna	BE8706	72.0	Active tracking - continuous	1.3	V16P	Pressure	External - Wire/cable ties	Holland et al 1990a
	Bigeye tuna	8808	79.0	Active tracking - continuous	1.0	V16	Temperature	External - Wire/cable ties	Holland & Sibert 1994
	Bigeye tuna	8809		Active tracking - continuous	1.2	V16	Temperature	External - Wire/cable ties	Holland & Sibert 1994
	Bigeye tuna	8810	67.0	Active tracking - continuous	1.2	V16	Temperature	External - Wire/cable ties	Holland & Sibert 1994
	Bigeye tuna	BE10-1	64.0	Passive monitoring	1.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE18-1	51.0	Passive monitoring	34.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE19-1	51.6	Passive monitoring	18.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE24-1	59.5	Passive monitoring	17.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE24-2		Passive monitoring	13.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE24-3		Passive monitoring	13.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE24-4		Passive monitoring	4.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE36-1	51.0	Passive monitoring	0.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE38-1	50.2	Passive monitoring	0.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE38-2		Passive monitoring	23.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE38-3		Passive monitoring	8.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE38-4		Passive monitoring	1.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE38-5		Passive monitoring	7.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE38-6		Passive monitoring	3.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE63-1	63.5	Passive monitoring	23.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE67-1	53.5	Passive monitoring	18.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE68-1	55.2	Passive monitoring	1.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE69-1	58.0	Passive monitoring	1.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE7-1	56.0	Passive monitoring	16.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE74-1	76.5	Passive monitoring	1.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004
	Bigeye tuna	BE9-1	64.0	Passive monitoring	1.0	V16	None	Internal - Intraperitoneal	Ohta & Kakuma 2004

Record: 1 of 27

Step 4 – Create Web Interface

- Convert Access Dbase to mySQL
- Host on mySQL database server
- Create simple, user-friendly search pages
- Allow simple & advanced searches
- Compatible with major browsers (Netscape, Internet Explorer etc.)

Progress;

Step 1. Relational Database

- created, undergoing refinement

Step 2 - Data Harvesting

- ongoing, 413 tracks, 33 species

Step 3 – Query Construction

- basic ‘menu’ complete

Step 4 –Web Interface

- basic webpage design complete
- UH-ITS will host on mySQL server with PHP

Useful byproducts of the Dbase creation process?

A note suggesting ways to standardize telemetry study write-ups

Track/Shark No.	Date started	Duration (h)	Total length (cm) and sex	Depth data recorded	Tag type
1	22 Sep 1993	30	200 M	Yes	Ext
2	22 Oct 1993	24	360 F	Yes	Ext
3	10 May 1994	20	217 M	No	Ext
4	6 Jul 1994	19	305 M	Yes	Int
5A	12 Oct 1994	30	304 M	No	Int
5B	22 Aug 1995	31	319 M	No	Int
6	20 Jan 1995	49	315 M	Yes	Ext
7	24 Oct 1995	7	342 M	No	Int
8	8 May 1997	50	417 F	No	Int



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