The Israeli Bird Ringing Journal 2015






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2014 Ringing data summary

Ageing criteria for Graceful Prinias

Studies about the Dead Sea Sparrow

A Summary of 10 years ringing in the Hula Valley

The Israeli Bird Ringing Journal

The Israeli ringing summary has been published annually since 2007, presenting all the ringing data collected during the year. The summary has evolved over the years, recently adding some analyses to the raw data. This year we have decided to upgrade the summary and to present the data in a better, more efficient way, with a new title: “The Israeli Bird Ringing Journal”. In addition, we decided to add articles written by the Israeli ringers on various topics, to allow an inside look at their work. The chosen subjects are a summary of a long ringing period, details about a research done using ringing, a short summary of a scientific article in which Israeli ringing data was used and a short professional article about bird ringing.

The goal of the new journal is to facilitate learning from our work and our ringer friends’ work. In addition, the Journal will be sent to other ringing centers in the world, allowing who ever wishes to, to read about our work. In addition to the journal, a short leaflet will be distributed among the Israeli birding community, to tell about the Israeli ringing. We believe that organizing and spreading our collected data this way will increase the needed exposure and use of our data.

The Journal was written and edited voluntarily, and is open to any suggestions. We wish to use this stage to thank all of those who make an effort to wake up early, open nets, ring the birds and tell the world about his\her findings.

Special thanks to Eli Haviv who helped with creating the maps and organizing the spatial data and to Ron Haran who helped bringing the journal to print. Many thanks to Ayla Rimon and Francis Argyle who helped with the English version.

Yosef Kiat, Israeli Bird Ringing Center, Manager

Ron Efrat, Editor

Israel
Bird
Ringing
Center

Society for the
Protection of Nature in Israel
החברה להגנת הטבע
Israel Ornithological Center

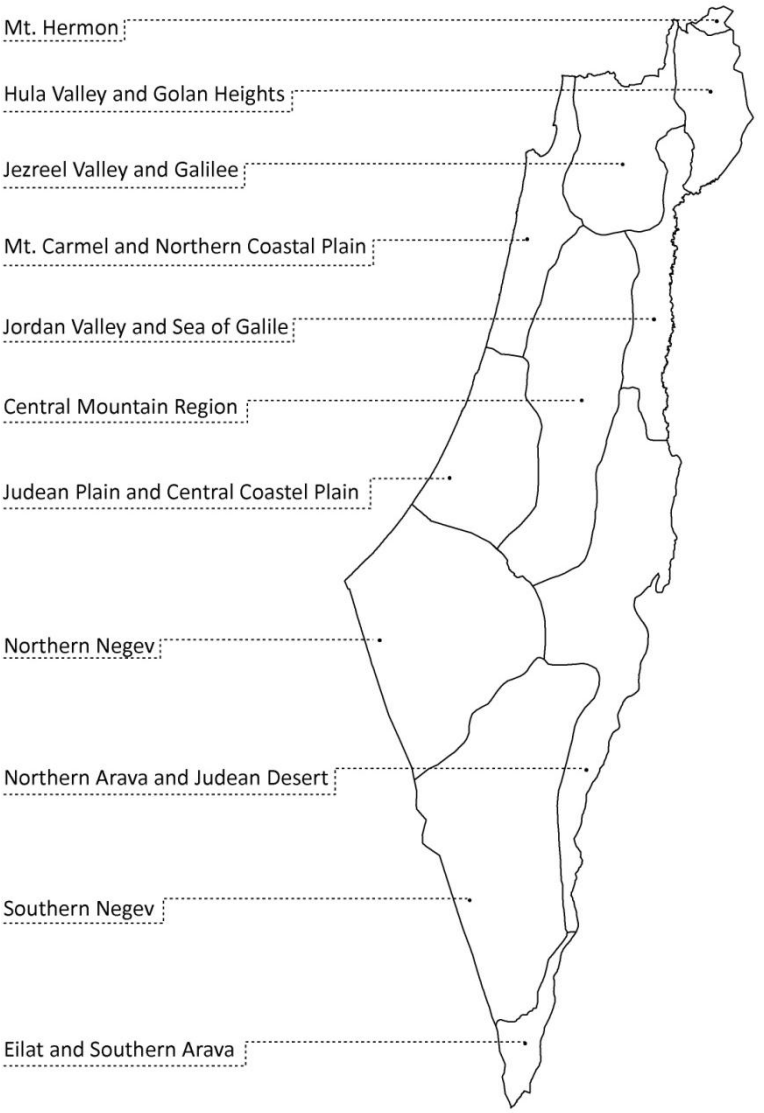
2014 Ringing data summary, Yosef Kiat

Introduction

The year 2014 produced the third highest annual number of ringed birds ever, with more ringed birds only in 2012 and 2013. The total number of ringed birds during 2014 is 90,015 of 239 different species. The ten most ringed species for 2014 are: Blackcap (12,380), Reed Warbler (9,976), Barn Swallow (8,017), Lesser Whitethroat (6,143), Chiffchaff (4,835), Willow Warbler (4,726), Sand Martin (4,696), House Sparrow (2,784), Spanish Sparrow (2,083) and Bluethroat (2,083). The total of these ten species constitutes 64.8% of all ringed birds in Israel in 2014.

Starting this year, the birds are summarized according to eleven geographic areas, as seen in the following map. The goal is to allow a better year-by-year comparison, mostly due to the frequent changes in the ringing effort at most of the ringing sites. The area with the biggest number of ringed birds for 2014 is the Hula Valley and Golan Heights, with 19,484 ringed birds, which are 21.7% of the annual Israeli total. Most of the birds in this area were ringed at the Hula Valley Ringing Station. During 2014, 355 birds with foreign rings were found in Israel, 31 Israeli ringed birds were noted abroad and 47 birds with Israeli rings made local movements between Israeli ringing sites.

Israel map divided to 11 geographic areas



Ringing Trends and Highlights

This chapter reviews interesting ringed birds and trends noted during 2014.

Sand Martin

During 2014, 4696 Sand Martins were ringed in Israel. This is the highest annual ringing total which made this species the seventh commonest species ringed in Israel in 2014. From this total, 93.7% were ringed by Francis Argyle at HVRS. Unlike previous years, this year a lot of Sand Martins were ringed during the autumn migration, with 55.2% of the total ringed during that season.

Green Warbler

The 7th record for this species in Israel was ringed at Yeruham Lake ringing station on October 2nd 2014.

Green Warbler (Rony Livne)

Grasshopper Warbler

The 9th record for this species in Israel was ringed at Yeruham Lake ringing station on August 22nd 2014.

Little Bunting

Two individuals of this rare species were ringed during autumn 2014, the first at Tzora Valley in November and the second at Neve-Eitan fish ponds in early December.

Little Bunting (Yosef Kiat)

Moustached Warbler

During 2014, 149 Moustached Warblers were ringed, 68 of them during a special ringing effort at Hof Hacarmel fish ponds in the autumn. Special ringing efforts can produce valuable data about usually less documented species. The Moustached Warbler is an example for such species,

since it is almost exclusively found in wet reed beds, where ringing is not common.

Marsh Warbler

Autumn 2014 was characterised by a unique migration pattern of Marsh Warblers. Usually, the biggest numbers of ringed Marsh Warblers is in the Hula Valley, while at other ringing stations it is not a common ringed bird. Compared to an average of 132 during the last four years, this year only 73 Marsh Warblers were ringed in the Hula Valley. In other parts of Israel, the opposite was seen when, for example, 46 were ringed at the Jordan Valley, 25 at the northern coastal plains, 24 at the Judean plains and 21 in the southern Negev.

Lesser Grey Shrike

During autumn 2014, a big number of Lesser Grey Shrikes were observed and ringed in Israel. While usually only 1 or 2 birds of this species are ringed annually, this year 15 different individuals were ringed at different ringing sites. The biggest number was ringed at Beit-Shean Valley, with a total of 7 ringed.

Lesser Grey Shrike (Yosef Kiat)

Dead Sea Sparrow

During 2014, a special effort was made to catch and ring Dead Sea Sparrows at Beit-Shean Valley and the northern part of the Dead-Sea. The effort was made as part of Ron Haran's researches (details in a different article in this journal) and as part of a special effort to collect moult data by Yosef Kiat. The total number of ringed Dead Sea Sparrows during 2014 was 1823, more than 4 times the number ringed during 2013.

Sinai Rosefinch

During 2014, 28 Sinai Rosefinches were ringed, 27 of them (mostly juveniles) during one ringing session. The Session was part of an effort to collect data on desert species at their drinking locations in the Negev Mountains.

Birds Movement according to Ringing Recoveries

This chapter reviews the movement of birds as revealed by the ring recoveries of the relevant year and with reference to past recoveries.

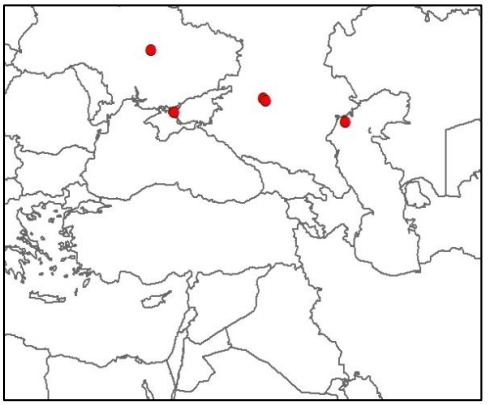
Osprey

During October 2014, a juvenile Osprey, ringed in July at Darvinskiy State Biosphere Nature Reserve, Russia (2395 km), was observed by Lavi Lilo. This is the first Osprey carrying a Russian ring recorded in Israel. So far, Ospreys from Finland (13) and Latvia (1) were recorded in Israel, all were ringed as hatchlings.

A Russian ringed Osprey (Lavi Lilo)

Pallas's Gull

During November 2014, a Pallas's Gull with a Ukrainian ring was noted at Ma'agan Michael by Amir Ben-Dov. This gull had been ringed six months earlier as a hatchling at Kremenchutske Reservoir (1845 km). This is the fifth recovery of the species in Israel, with all previous recoveries from Ukraine or south-west Russia.



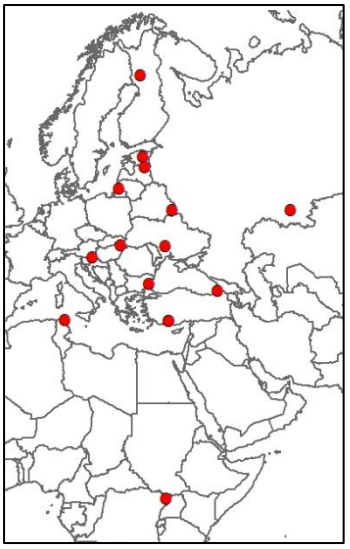
Pallas's Gull

Ruff

During August 2014, a colour-ringed Ruff was seen at Eilat salt ponds by Itai Shanni. This Ruff had been ringed at Turov Ringing Station, Belarus (2563 km). This is a ringing station which specialises in waders and some other waders from this station have been seen in Israel in the past. This is only the second foreign ringed Ruff to be found in Israel, the previous one also being at Eilat, carrying a Hungarian ring. Three Israeli ringed Ruffs were previously found abroad, 2 in Russia and 1 in Slovakia.

Sand Martin

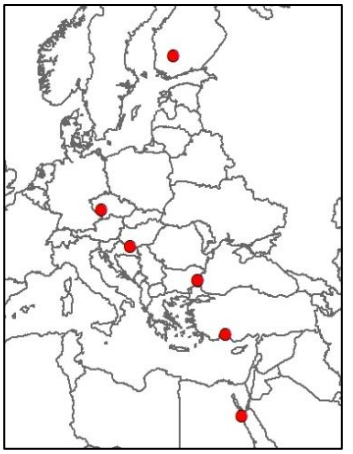
Two Sand Martins ringed during the same ringing session by Francis Argyle in spring 2013 at HVRC were recovered abroad, one in Georgia (1080 km) and the other in Slovenia (2235 km). So far 15 recoveries of Sand Martins were documented between Israel and other countries: 2 each from Russia, Estonia and Turkey and 1 each from Finland, Lithuania, Hungary, Ukraine, Bulgaria, Tunisia, Congo, Georgia and Slovenia.



Sand Martin

Sedge Warbler

During April 2014, a Sedge Warbler with a Hungarian ring was caught by Francis Argyle at HVRC. The warbler was ringed at Sumony, Baranya (2077 km) during August 2013. Although being quite a commonly ringed species in Israel and Europe, only eight recoveries have been documented in Israel so far. The first recovery of a foreign-ringed Sedge Warbler was at Eilat ringing station during 2001. In total, 2 ringed birds from Hungary and one each from Finland, Czech Republic, Turkey and Egypt have been found in the past.



Sedge Warbler

A Ruff from Belarus (Itai Shanni)

Eastern Olivaceous warbler

An Eastern Olivaceous warbler ringed at Modi'in Hills by Yosef Kiat during April 2013 was hunted a year later in Cyprus (386 km). This is only the second recovery of this species from Israel, the last one being from Antikythira, Greece. Although it is a common migrant in Israel, with about 1500 individuals ringed every year, it seems that the species' distribution is the reason for the low recovery rates. Eastern Olivaceous Warblers breed in the eastern Mediterranean region and the Balkans where there is little ringing activity.

Blackcap

During 2014 four Blackcaps with foreign rings were recovered in Israel, one each from Poland and the Netherlands and two from the Czech Republic. The Blackcap from the Netherlands is the first ever caught from this country and one of the most western ones recorded in Israel, having being ringed at longitude 7 degrees east. Two Blackcaps with Israeli rings were recovered abroad, in Cyprus and Sweden.

Lesser White throat

This species has one of the highest recovery rates between Israel and other countries. This is due to its unique migration route through the Middle East, Central and Western Europe where ringing is a relatively common activity. So far 53 Lesser White throats carrying foreign rings were recovered in Israel and 32 Israeli ringed birds were recovered abroad. During 2014, six Lesser White throats with foreign rings were recovered in Israel, and three with Israeli rings recovered abroad: 3 from Sweden, 2 from the Czech Republic and 1 of each Belgium, Poland, Hungary and Slovakia.

Willow Warbler

A Willow Warbler ringed in Tel-Aviv by Noam Weiss during September 2013 was hunted a year later in Cyprus (331 km). This is the second time this species has been found in Cyprus with an Israeli ring, the last one being in 1999. Every year we get reports of Israeli ringed birds which were hunted in Cyprus, a phenomenon which

emphasises one of the biggest problems that migrating birds face while flying through the Mediterranean basin. This is the 15th recovery of a Willow Warbler between Israel and other countries: 5 from Finland, 2 from Estonia, 2 from Cyprus and 1 of each Norway, Sweden, Russia, Hungary and Congo.

Penduline Tit

During 2014, three Penduline Tits movements within Israel where documented: a Penduline Tit ringed by Yosef Kiat at Beit-She'an Valley was caught by Ron Haran at Einot Zukim (92 km) and two Penduline Tits ringed by Ron Haran at Einot Zukim and by Eli Atar at Ma'agan Michael were caught at Eilat ringing station by Yael Lenhardt (242 and 329 km respectively). All three birds were originally ringed during fall migration in November and recovered during spring migration in March. Penduline Tit movements have been recorded between ringing stations in Israel in the past, for example between Ashdod and the Hula Valley.

Ageing Criteria for Graceful Prinias, Yosef Kiat

The Graceful Prinia has a long breeding season and the length of one breeding cycle is very short, which allows many breeding cycles every year. In addition, Graceful Prinias can breed in their first calendar year (CY). These two characteristics cause a big variation in the available time for feather moult and the feather wear of juvenile Prinias. For example, a Graceful Prinia that hatched during February has about nine months until winter starts, an extended period of time for moulting in comparison with another Prinia which hatched in August. During September, the first individual's feather will be much worn in comparison with the fresh younger one.

While adult Graceful Prinias all go through a complete moult during the summer and until early autumn, first CY Prinias go through a complete moult (early hatched individuals) or a partial moult (individuals which hatched late in the season). About 50% of the juvenile Prinias go through partial moult, leaving some old feathers which are usually the primary coverts (PC) or the secondaries. On rare occasions, a juvenile Prinia will leave an unmoulted inner primary, some tail feathers, alula feathers or tertials. In all options, the PCs are the last feathers to moult, thus they are the best sign for ageing.

Ageing rules

Before moult: Try to determine if the feathers are worn from a long period of use, as in adults, or a short period as in juveniles.

After moult: If all feathers were moulted, ageing is not possible thus a bird having done a complete moult cannot be aged. If a moult limit is seen, with all or some of the PC old (nest feathers), then the bird should be aged as 1st CY, age 3 on the Euring code.

During moult: PCs are moulted at the same time as their corresponding primaries, thus allowing the identification of 1st CY birds during active moult: if the bird moults its primaries without moulting the corresponding PCs, than it is a 1st CY bird. If a bird moults its primaries and its PCs, it cannot be aged.

The eye color in juvenile Prinias can only be used for ageing during their first few weeks after fledging because they change to adult color in a very short time. If the bird has fresh feathers and a dark eye then it can be aged as 1st CY, but an eye of orange colour cannot be used for ageing.

For further reading, please see this article:

http://www.tandfonline.com/doi/abs/10.1080/03078698.2015.1059633#.Vfkbi_lVhBc

A 1st CY bird after partial moult. Notice the old PC and Secondary (S4)

A 1st CY bird after partial moult. Notice the old 3 inner PC

A Graceful Prinia after complete moult. All feathers are fresh, thus it cannot be aged

Studies about the Dead Sea Sparrow,

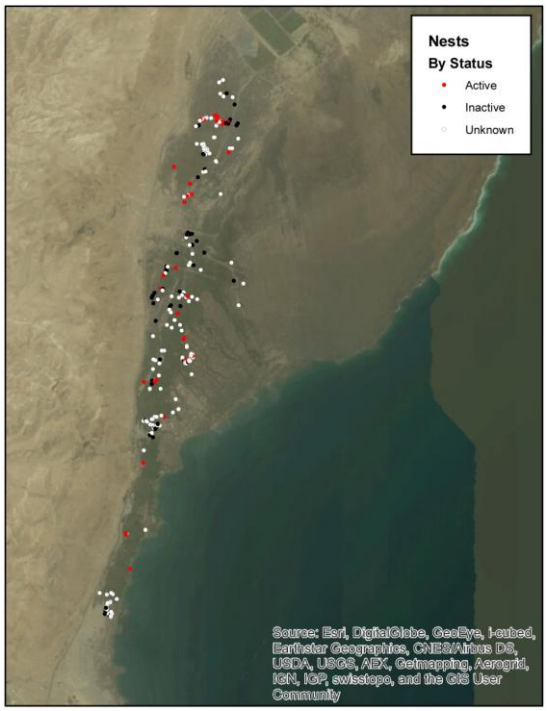
Ron Haran

The Dead Sea Sparrow (*Passer mabiticus*) is a seedeater of the Sparrows family. It has two subspecies and is locally found from Iran and Afghanistan, where *P. moabiticus yeti* is found, to Israel, Jordan and even Cyprus, where *P. moabiticus moabiticus* is found. Most of the Dead Sea Sparrow population is resident, but some populations make short migratory journeys. The heart of the breeding season is between late March and August. During one breeding season up to 3 nesting cycles can occur, in each about 4 eggs are laid. Replacement clutches also occurs often, due to different problems such as predation, fires, weather damages and more. The Israeli population of Dead Sea Sparrows, which is found mostly along the Great Rift Valley, is a subject for a few researches that have been running in the last couple of years in a joint effort of the Israel Nature and Parks Authority (NPA), Haifa University and Tel-Aviv University.

Two of the researches of this project are done in Einot Zukim Reserve. This long established reserve spreads over 3-4 km of the Dead Sea shore. The main flora in the reserve is Tammarix, Reed, Rush, Ravenngrass and Papirus Sedge. Less common plants are Saltbush, different Seablights and a few Taily-weeds. The

Dead Sea Sparrows flying at Og salt flat (Ron Haran)

reserve is strongly affected by the withdrawal of the Dead Sea, characterized by a southward "migration" of the fresh water springs that feed the reserve and the drying of many areas in the northern parts of the reserve. In addition, due to the fall in the Dead Sea water level, the streams are digging deeper into the ground, forming mini canyons dozens of meters deep between huge and desolated mad flats uncovered by the withdrawal of the sea.



Nests distribution in Einot Zukim reserve during 2014

The first research studies the distribution of Dead Sea Sparrows nests in the Reserve. By mapping the nests using GPS, we try to understand the factors influencing the choice of nest locations. The factors tested in this research are diverse including flora, open fresh water sources, human activity, competitors such as House Sparrows (*Passer domesticus*), distance from the nearby cliffs and from the Dead Sea present and past shore lines and more.

The mapping is done on foot in harsh conditions of thick Tammarix thickets, mud and very high temperatures. The reserve length is about 3 km and the changing width can get to 300 meters. Every nest is marked and characteristics such as size, height, bird's activity and more are registered. During the observations pictures and locations of marked Dead Sea Sparrows are taken, as explained in the second research.

Using GIS software it will be possible to test the nests distribution in relation to each of the mentioned factors which may affect the sparrows choice, in an effort to understand which are the important

factors. One of the answers we will try and answer is: what is the effect of the Dead Sea withdrawal on the Dead Sea Sparrows and can the sparrows be indicators of the reserve's condition.

The second research in Einot Zukim reserve deals with the loyalty of Dead Sea Sparrows to their nests locations, looking at different levels of loyalty starting at loyalty to the reserve and ending with loyalty to a specific nest. The Dead Sea Sparrows often nest in more or less dense colonies. Their typical nest, as with other Sparrow species, is made of hundreds to thousands of different sized twigs. In Einot Zukim reserve almost 100% of the Dead Sea Sparrows nest on Tammarix trees. These trees can be green, yet some of the Sparrows prefer nesting on burnt or dried trees in different heights from 2 to 7 meters above ground.

To track individuals in the field, Dead Sea Sparrows are marked with colour rings during the ringing sessions taking place in the reserve. In addition to the mandatory metal ring, each Sparrow is fitted with 3 individually ordered colour rings (for example: red over metal on the right leg and blue over white on the left leg). The colour rings allow individual recognition using photographs of the sparrows on their nests or in other important locations around it. These photos are also documented using GPS to produce a data base of information which will answer the question about the loyalty of Dead Sea Sparrows to their nests. So far about three hundred sparrows have been marked this way, of them dozens returned to the reserve and have been observed.

Another research which is done along the Dead Sea Sparrows distribution in Israel studies the genetics of the Dead Sea Sparrows in relation with their movements along the Great Rift Valley.

After the breeding season, the Dead Sea Sparrows leave their breeding sites and wonder\ migrate to foraging sites, where they sometimes spend the entire winter in flocks of hundreds of birds, and raid seed bearing plants such as Saltbush, Seablights and more. One of these foraging sites is Kalya\ Og salt flat. In the last couple of years, about one thousand five hundred Dead Sea Sparrows were ringed there, and re-traps of these birds slowly teach us about their origins, characteristics etc. For

example fifteen Dead Sea Sparrows that were ringed in Beit She'an Valley (75 km away) were re-captured, along with two from the Hula Valley (150 km away). One of the most impressive things learned from these re-traps was the very low overlap (less than ten individuals) between the wintering population and the adjacent Einot Zukim reserve, only 8 km away.

As part of the genetic research, blood samples are taken from groups of about twenty Dead Sea Sparrows from different breeding locations along the Great Rift Valley, dozens of kilometers between them, in order to check if there is a genetic difference between the populations along the south to north axis. These samples were taken from sparrows in the Beit She'an Valley located in the north and the Heimar reservoir in the south, with more distant locations, north and south, planned in the near future. The samples are transferred to a lab in Tel-Aviv University for analyses and deciphering of the genetic characteristics. In addition, morphological characteristics such as feather colours in different parts of the Sparrows body will be checked to see if there are morphological differences between the populations.

The ecological studies in Einot Zukim reserve and Kalya salt flat are done under the supervision of Professor Ido Izhaki of Haifa University. The genetic study is done in the lab of Doctor Roi Dor of Tel-Aviv University.

A couple of Dead Sea Sparrows mating, the male has colour rings which allows personal identification (Ron Haran)

For more information:

About Einot Zukim reserve, in the NPA website:
http://www.parks.org.il/ParksAndReserves/enotTsukimN/Documents/einotTzukim-En.pdf

About the Dead Sea Sparrows, in HBW alive website:
http://www.hbw.com/species/dead-sea-sparrow-passer-moabiticus

HVRS 10 years summary, Francis Argyle

1 – Early years and first ringing locations

My first bird ringing trips to Hula Valley, in the early 1980s, were with Yakov Langer to the Hula Nature Reserve. Apart from regular ringing in Hula NR, Yakov was also interested to find evidence of breeding Great Reed Warblers and Moustached Warblers and, for this purpose; we used to set nets at the former Experimental Ponds in what is now the Agamon. This attractive piece of habitat, small ponds, reeds and a few bushes was destroyed and is now the Botanic Garden of the Agamon (Figure 1, A).

My own ringing with SPNI (Society for Protection of Nature in Israel) in the Agamon began in 2004. Dan Alon showed me around the Agamon to identify some good mist netting sites. That initial reconnaissance was a bit of a circus because about a dozen people like office managers, secretaries, guides and I don't know who all came with us. It was a dull winter day; the Agamon seemed to me to be all dead brown reeds and with rather few passerines. From this first exploration, it did not look to be an exciting ringing site. The next day I started looking more carefully on my own and found that the area near the Crane Hide looked as if it might be good when the reeds grew again in spring. This became a regular site and a CES known as Cranes south-west (Fig. 1, B). There was another site of newly-planted trees which was used only for a couple of seasons on the Jordan River at the north end of the Agamon. Best discovery of all at that time was the Eucalyptus site next to the West Canal and next to Hula NR (Fig.1, C). This site has tall Eucalyptus trees, some White Cedar trees, reeds, weeds and Bramble. It was a good site all year round, but especially during winter on account of

Early days at the Hula valley, with young Kobi, Zev and a Zitronblat (Francis Argyle)

its being sheltered by tall trees, and there was a derelict building for a ringing base. We used it regularly up to end of 2011 and after that the undergrowth and Bramble became too dense so that it was difficult to maintain the net paths.

One day in late March 2004, I decided to explore the Big Island. I had been there before to the tower in the south-west corner to catch Cranes by cannon net. That had been in winter and the grass was short then. By late March, the weeds were higher than the car in places but I kept driving straight south and eventually arrived at the southern shore. By chance, I had arrived at a place where there was an open shallow-water, muddy reed-fringed inlet from the main lake. This was an ideal site (Fig.1, D). Nets did not need to be taken down at the end of the day. There was daytime ringing, evening Swallow roost and also the possibility of a few waders. There was even a shady Willow tree for a ringing base. This site was destroyed when a new canal was dug through it and, since then, the inlet has become overgrown and has disappeared. The exact place can be identified as being the at west end of the K line at HVRS (Hula Valley Ringing Station). From this initial Big Island site, I found that the reeds around the tower were also a good site but, again, this was damaged by the new canal. Daunted or dismayed? No, I made a raft from two pallets and eight 15 litre plastic containers and created the Peninsula site in the reeds across the new

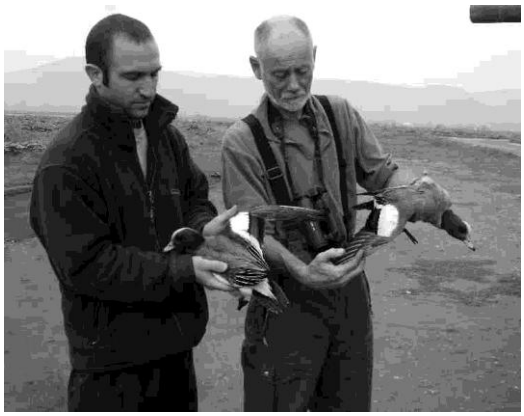
Figure 1: some of the ringing sites in the Hula Agamon and Reserve

A – Botanical garden, B – Crane hide CES, C – Eucalyptus, D – Big island tower, E – Nature reserve CES, F – Big island ringing station, G – Mahanaim CES

canal. This site was used from 2006 to 2014 mainly for its *Hirundinidae* roost in spring.

2 – How it become what it is today

In 2005, Amit Geffen joined me and the CES work started. That first year we had sites in the Experimental ponds, Cranes SW, Hula NR and on the Big Island at the site of the present ringing station (Fig. 1, A, B, E, F).



Francis and Nadav with Widgeons, 2006

Constant Effort Sites in Hula Valley are not so constant. We still have one in Hula NR but it is now in its fifth location within the reserve, Cranes SW, an excellent site near the Crane Hide has been permanently flooded since 2012 and is inaccessible, The Big Island site lasted a year then the ringing station was built there and the new canal was dug through the middle of the CES. For some years there was a Mahanaim CES (Fig. 1, G) in a shelter belt of trees running south from the lake but since 2013 it has been too overgrown and few birds are to be found there. We still have the Hula NR CES and one at Lahavot HaBashan fish ponds has been worked for some years.

Amit and I had an alternative to mist netting in winter when there was little opportunity for mist netting in the Agamon. This was in winters 2005 and 2006 and we used my three whoosh nets for catching Coots. The prime target was always the Wigeon flock and occasionally we did catch some plus a few Teal, Mallard, Spur-winged Plover and maybe a Snipe. We even successfully targeted a flock of Skylarks in winter 2005. However, we usually caught Coots and they are messy, aggressive birds to handle at the best of times. The worst of times occurred one day when we had about 20 Coots in sacks and it started to rain heavily. We put the birds in my car and sought suitable shelter where we could ring them. Well, what we found was hardly suitable, but it was nearby and it was the chemical long-drop toilet on the Big Island. I am still of the opinion that the absolute pits of bird-ringing, a level below which one can sink no further (unless the

floor were to collapse), is handling Coots on a cold, wet day in a toilet cubicle designed for one person not two, plus 20 Coots and the ringing box.

At some time and I think it must have been in 2005, JNF manager Effy Na'im asked me to design a ringing station on the Big Island "as soon as possible" he said. That was at 4pm and he gave me a map of the Big Island and outlined the boundaries of the land available towards the south-east of the island where the station is now. My plans were on his desk at 8am next day, building, pathways, pond and Bee Eater colony site, tree and bush planting – species and planting density – it was all there. Planting started in 2006 and the building was constructed in 2007. The pond is not where I had planned it, but no matter and some of the trees and bushes were accidentally mowed small by the tractor mower cutting the grass. So, what there is now is as I had planned except that the original boundaries have been gently adjusted to fit the flow of birds through the area. I was not consulted about the design of the building, it could have been made better and simpler and it would have cost less by not having to be modified and re-roofed later if a ringer/farmer had been asked about it in advance.

I have ringed in the Agamon with three SPNI area managers and, within basic guidelines, I have been left to arrange my own week by week ringing plan. Yoav Perlman managed from afar in the first years. At that time I was only available in winter and spring, so Yoav filled in at other time of year and we never actually met at a mist net. Itai Shanni came in 2006 and stayed until 2010. He had little to do with day-to-day ringing, but I helped him with cannon netting for his Cranes research over two winters. I had mixed feelings about those Crane catches; it was an exciting time, but a big responsibility. There were


Ron Efrat

some very cold pre-dawn net settings when the grass was frozen with frost. There were some long cold waits huddled on the floor of the hide wrapped in the sheets that were for covering the Cranes in the net as soon as they were caught. The hide, a roof and four walls that were bolted together and could be easily disassembled, was the size and appearance of a one-ton bale. These bales were common in the fields and the Cranes did not pay attention to them, especially if we placed the hide close up against some reeds. It was a real privilege to be so close to so many Cranes. We used a separate field away from the main Crane feeding area, but, even so, it was not unusual for there to be 2000 or more close to us. Close? On account of the short electric cable between hide and net, the hide was only 35 metres from the edge of the catching area. Sometimes the view of the catching area would be totally blocked by Cranes moving between hide and net. I remember one young Crane pecking at spilt corn just outside the hide and close enough I could have grabbed its bill by hand from under the wall of the hide. What was the biggest frustration of those times? Not being able to catch the single Demoiselle Crane that was standing in the middle of the catching area but surrounded by hundreds of the Common Crane study species still just outside the catching area. By the time we came to catch, the Demoiselle had been pushed out of the catching area by the larger Common Cranes.

I don't remember exactly when I first met Nadav Israeli but I do know that it was at Tally Oren's ringing site that she worked with Avi Rochman in the Hula NR. Nadav became a regular helper in 2004 and SPNI area manager with A-grade ringing licence when Itai left in 2010. In his managerial role, Nadav had little to do with the day-to-day ringing and I was left to make my own arrangements within basic guidelines.

3 – Ringing and ringers at HVRS

As well as providing me with a small car essential for a bird ringer, SPNI also provided accommodation. In the first 3 years, it was in Ayelet HaShachar. From 2007 to 2010, we were based in Lahavot HaBashan in adjacent single room units and in 2011, back to Ayelet. There was always place for two or even three visiting ringers

to stay at HVRS during my years there. Most of the present day independent ringers (As and Bs) did some of their training at HVRS and made use of the accommodation. However, the spare accommodation was under-used and a lot of the time I was ringing alone. There is a shortage, in Israel and even world-wide of bird ringers, both of trainer-grade ringers and of new candidate ringers.

Paddyfield Warbler (Francis Argyle)

I have always taken a relaxed attitude to involving helpers and trainee ringers at HVRS. Best, I think, to let people come in and find their own level at the beginning. I like to let people do anything with which they are comfortable doing under my supervision and responsibility, to let them build their own level of confidence at handling birds and afterwards to fill in the gaps where essential skills are absent or at a low level. Most people respond well to this method of supervised trust and know when they have to ask for help. Very occasionally there has been someone of wooden fingers who would not make a ringer in 10 years of training but most responded well. It was just that there were never enough of them coming forward.

If there were enough skilled people present, I would prefer to write down the data myself. If not, then I would write for others and ring at the same time. The recording of data is not a work to be given to someone inexperienced in ringing. By recording the data myself, I could be alert for mistakes as they were happening: "Reed Warbler, age 4, wing 60....." she said. "Too short, please check it again" I said. "Wing exactly 60mm" she said. I looked across the table and said "that's the ninth Paddyfield Warbler for Israel that you have in your hand". I had seen only one before when I caught the seventh one for Israel at Ma'agan Michael a couple of years previously, so that was an extreme example of what might go wrong. There have been the occasional Reed Warblers retrapped as Olivaceous or the other way around, but, considering the numbers

involved each year, mistakes have been relatively few.

Basra Reed Warbler, one of the best species discovered by the HVRS (Francis Argyle)

I can't name everyone in a short article like this. Amit has already been mentioned from the early years. I have to mention also Gev and Jonathan from that time. By age 12, these two lads from Ayelet could be trusted to measure birds accurately, to extract from the nets nearly every bird within their reach and to know when to ask for help. Jonathan got a C licence but Gev got even more, he gained an interest and became confident and good at something. It is always difficult to get and keep people interested in an activity, especially in Israel where the distractions and obligations for the young people are many. So if it is difficult to find one person, then it is even more difficult to find a couple who both want to be ringers. If a couple does come for training, then, on account of the common interest, there is a good chance that they will continue with bird ringing. The first such couple at HVRS in 2005 was Or Berghaus and Neta Yaniv. They are now married, living in Almagor, have a small daughter and their own ringing site on the Sea of Galilee. Sean and Anna Zimin have made three 4-day ringing trips to HVRS in the last two years and should soon be independent ringers. Ron Efrat has been coming to HVRS for some years already and now has B licence. Through bird ringing he met Yael Lehnardt who was established in ringing before him. They now live in Jerusalem not far from the JBO. Darren Burns from Sde Boker did some of his training at HVRS. He is now employed as a full-time ringer based in Yerucham. Closer to home, from Yesod Hamala, is Eve Miller. Eve has been associated with HVRS for a long time, she attended a ringing course and has been coming to help regularly ever since. Eventually she applied for a C licence and now has ambitions to go ringing beyond Hula Valley and to become an independent ringer.

I was absent from HVRS in 2009. I came

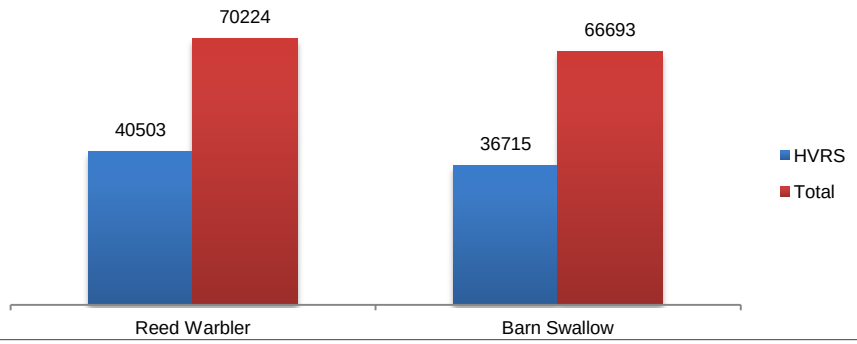
back in 2010 when I was able to be ringing there for 12 days per month for most of each year until July 2015.

By 2011, Dotan Yosha was qualified to ring independently and Ayla Rimon was soon up to the same standard. So, for that year and 2012, there was a strong team at HVRS and the national total of birds ringed in Israel nearly reached 100,000 in that year. Of this total, two ringing stations contributed half, Eilat 24% and HVRS 26%, of the national total. Since 2010, HVRS has always been the most productive ringing station in Israel for numbers of birds ringed and this has probably been achieved with fewer man-hours than at other places. At HVRS, there are maybe 4 bird species which are caught in big numbers and many more species with less than 100 or less than 10 caught per year. In most years, around 80 species are caught per year and the average on my duty days was around 200 birds, including retraps, per day, and the average total of new birds ringed from 2010 to 2013 was just under 20,000 per year.

4 – The end (?)

So, what is so good about HVRS? What is right about the place? It is in the right place in the middle of the northern part of a great valley, a geological fault that runs from Malawi to Turkey. In Israel, it is quite narrow, less than 10 km wide in Hula Valley. HVRS is in the middle of that, it is almost the only piece of natural habitat in surroundings of intensive agricultural land and the city park-like habitat of short mowed grass and a few tall trees of tourist Agamon. Apart from that, the whole of the valley scenery, hills all around and Hermon to the north, views up the Beka'a of

Figure 2: Reed Warbler and Barn Swallow ringing totals at HVRS and in Israel between 2005 and 2014



Lebanon on a clear day. It's a wonderful site. Even the situation of the building under shady Plane trees and the outdoor ringing tables under Fig trees is all most attractive. The wetland and reeds of HVRS were always good habitat for warblers of genus *Acrocephalus* and for roosting Barn Swallows and Sand Martins. More recently, the trees and bushes planted in 2006 have grown up, and, with careful grass and annual plant mowing management, the habitat has developed to become more attractive to other passerine species. An HVRS specialty in March/April has been the trapping of Crakes of three species (*Spotted, little and Baillon's*) and a few Water Rails in Potter Traps in the fringes of the station pond. It was never highly productive, but 15 or 20 of these rather secretive birds were caught every year since 2010. With 20 or 30 mist nets set in the middle of the Rift Valley what could go wrong for HVRS run jointly by Society for Protection of Nature in Israel and the Jewish National Fund?

It went wrong this year when disagreements between SPNI and JNF led to the demand from JNF that SPNI quit the ringing station and that SPNI ringers would no longer be allowed to work there. This is a sad state of affairs and SPNI removed all their equipment and staff out from HVRS in July 2015. In an email of 9th June, JNF representative Yaron Charka wrote to me "We will do our best to maintain and continue the good work you have done so far". So we must all be optimistic for the future of HVRS. Meanwhile, many thanks to all who have made HVRS a useful and fun experience for me. You know who you all are and I hope you will read a lot more into these few words. A ringing station is like a community and it cannot be effective without the support and respect of local people. SPNI had earned that support and respect for HVRS from local people no matter if they were active helpers, Agamon guides or local JNF managers and staff. The one person not mentioned is Dan Alon, head of Israel Ornithology Centre, SPNI. Without Dan's initiative and persistent background support, this ringing station would not have been what it is and, sad to say, by being so much behind the scenes, Dan appeared at the ringing table only on rare occasions.

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Total	**1061**	**19498**	**571**	**5964**	**5293**	**10845**	**14833**	**5021**	**10342**	**5728**	**10859**	**90015**	**Total**
Tachybaptus ruficollis											1	**1**	Little Grebe
Calonectris diomedea							1					**1**	Cory's Shearwater
Phalacrocorax pygmeus				4								**4**	Pygmy Cormorant
Pelecanus onocrotalus		7			40							**47**	White Pelican
Ixobrychus minutus		10		7	8	1	2		6	2	4	**40**	Little Bittern
Nycticorax nycticorax				3			3					**6**	Night Heron
Ardeola ralloides				3					1			**4**	Squacco Heron
Bubulcus ibis				3				2				**5**	Cattle Egret
Egretta garzetta							1		1		1	**3**	Littke Egret
Egretta alba											1	**1**	Great Egret
Ardea cinerea					1		1				1	**3**	Grey Heron
Ciconia ciconia		6		4	2							**12**	White Sork
Ciconia nigra		13		17	1							**31**	Black Stork
Plegadis falcinellus							1					**1**	Glossy Ibis
Anas crecca		2		1			6					**9**	Teal
Aythya nyroca						31						**31**	Ferruginous Duck
Pernis apivorus		2			2		17	2				**23**	Honey Buzzard
Milvus migrans		6	1	6			7	2				**22**	Black Kite
Elanus caeruleus				1								**1**	Black-winged Kite
Neophron percnopterus		3			8				2			**13**	Egyptian Vulture

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Gyps fulvus		14			21		1		25	7		**68**	Griffon Vulture
Circaetus gallicus		1			2		1					**4**	Short-toed Eagle
Circus aeruginosus											1	**1**	Marsh Harrier
Circus cyaneus									1			**1**	Hen Harrier
Circus macrourus		1										**1**	Pallid Harrier
Accipiter gentilis					1							**1**	Goshawk
Accipter nisus		3	1	1	8	1	11		1		20	**46**	Sparrowhawk
Accipter brevipes							1		1	1	13	**16**	Levant Sparrowhawk
Buteo buteo		7		3	9	1	6	2			12	**40**	Common Buzzard
Buteo rufinus		1			6	1	1					**9**	Long-legged Buzzrd
Aquila pomarina		1	1		3							**5**	Lesser Spotted Eagle
Aquila clanga					1							**1**	Greater Spotted Eagle
Aquila heliaca		1										**1**	Imperial Eagle
Hieraaetus fasciatus		1			4		1					**6**	Bonelli's Eagle
Falco vespertinus							8					**8**	Ref-footed Falcon
Falco naumanni					72	2	9					**83**	Lesser Kestrel
Falco tinnunculus		51	89	46	137	14	79	5	2	2	2	**427**	Common Kestrel
Falco subbuteo							5	1				**6**	Hobby
Falco biarmicus					5							**5**	Lanner Falcon
Francolinus francolinus						1						**1**	Black Francolin
Alectoris chukar						2	13					**15**	Chukar

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Ammoperdix heyi										7	2	**9**	Sand Partridge
Coturnix coturnix		1		1			25	1	1		4	**33**	Quail
Rallus aquaticus		1			7		3		3			**14**	Water Rail
Porzana porzana		5		1	1		1				1	**9**	Spotted Crake
Porzana pusilla		3							1			**4**	Baillon's Crake
Porzana parva		8										**8**	Little Crake
Crex crex		1	1		1		13				3	**19**	Corncrake
Gallinula chloropus		3			2		8		6	1	2	**22**	Moorhen
Fulica atra							2					**2**	Coot
Himantopus himantopus											1	**1**	Black-winged Stilt
Burhinus oedicnemus							38					**38**	Stone Curlew
Charadrius dubius				6								**6**	Little Ringed Plover
Charadrius hiaticula					2						10	**12**	Ringed Plover
Vanellus spinosus		1		4	2		2		4	1	3	**17**	Apur-winged Lapwing
Calidris minuta				1	10			1			101	**113**	Little stint
Calidris temminckii				1								**1**	Temminck's Stint
Calidris ferruginea											1	**1**	Curlew Sandpiper
Calidris alpina					1						32	**33**	Dunlin
Limicola falcinellus					1							**1**	Broad-billed Sandpiper
Philomachus pugnax					3						9	**12**	Ruff
Lymnocryptes minimus					3		2	1	1			**7**	Jack Snipe

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Gallinago gallinago				1	1		4	2	2			**10**	Snipe
Tringa totanus				1	1						2	**4**	Redshank
Tringa stagnatilis				1								**1**	Marsh Sandpiper
Tringa ochropus				2				1	1			**4**	Green Sandpiper
Tringa glareola					1							**1**	Wood Sandpiper
Actitis hypoleucos				2	1							**3**	Common Sandpiper
Larus ridibundus					13		4					**17**	Black-headed Gull
Larus genei					6						3	**9**	Slender-billed Gull
Larus michahellis					1		41					**42**	Yellow-legged Gull
Larus cachinnans					1		2					**3**	Caspian Gull
Larus armenicus					2		11					**13**	Armenian Gull
Larus fuscus							3					**3**	Baltic Gull
Sterna hirundo					240		1					**241**	Common Tern
Sterna albifrons					157							**157**	Little Tern
Chlidonias hybridus											1	**1**	Whiskered Tern
Chlidonias leucopterus					3							**3**	White-winged Tern
Pterocles orientalis								1				**1**	Black-bellied Sandgrouse
Pterocles coronatus								1				**1**	Crowned Sandgrouse
Columba livia									3	1		**4**	Feral Pigeon
Streptopelia decaocto		3		44	6		8		14	6	64	**145**	Collared Dove
Streptopelia turtur	3	7		17	2	2	3	3	4	8	3	**52**	Turtle Dove

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Streptopelia senegalensis		3	1	2	5	29	2	2	30	15	84	**173**	Laughing Dove
Oena capensis										12	12	**24**	Namaqua Dove
Psittacula krameri						1					1	**2**	Rise-ringed Parakeet
Clamator glandarius						1	4	1				**6**	Great Spotted Cuckoo
Cuculus canorus						2	1		2			**5**	Cuckoo
Tyto alba		171	260	189	103	34	2	1				**760**	Barn Owl
Otus scops		2	1	3	17	2	5			1	9	**40**	Scops Owl
Bubo bubo					1	1						**2**	Eagle Owl
Athene noctua					2		1	1				**4**	Little Owl
Strix aluco			1		10		1					**12**	Tawny Owl
Asio otus		1			20	1	7				3	**32**	Long-eared Owl
Caprimulgus europaeus					2	13	4				2	**21**	Nightjar
Apus apus								1				**1**	Swift
Halcyon smyrnensis		20		23	21	7	33	4	4	11	3	**126**	White-throated Kingfisher
Alcedo atthis		68	2	34	83	1	65	3	42	8	11	**317**	Kingfisher
Ceryle rudis		2		12	14		1					**29**	Pied Kingfisher
Merops orientalis									8	1	9	**18**	Little Green Bee-eater
Merops persicus				30								**30**	Blue-cheeked Bee-eater
Merops apiaster		2			1	1	60		21		161	**246**	Bee-eater
Coracias garrulus							4					**4**	Roller
Upupa epops		3		13	13	13	7	13	19	1	7	**89**	Hoopoe

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Jynx torquilla		8	1	6	7	28	15	14	54	10	31	**174**	Wryneck
Dendrocopus syriacus		1		5	6	22	16	5	2			**57**	Syrian Woodpecker
Ammomanes deserti									96	27		**123**	Desert Lark
Calandrella brachydactyla				1				1			1	**3**	Short-toed Lark
Galerida cristata		1		8			14	12	43	1	3	**82**	Crested Lark
Alauda arvensis				33								**33**	Skylark
Riparia riparia		4401		1	3		92		9		190	**4696**	Sand Martin
Ptyonoprogne fuligula							1		13	1	3	**18**	Rock Martin
Hirundo rustica	8	4049	42	122	546		2064	2	220	5	959	**8017**	Barn Swallow
Hirundo daurica		34	3	1	5		48				241	**332**	Red-ramped Swallow
Delichon urbica				1							6	**7**	House Martin
Anthus richardi				3								**3**	Richard's Pipit
Anthus campestris				5					1			**6**	Tawny Pipit
Anthus trivialis		4		4		3	125	4	15		20	**175**	Tree Pipit
Anthus pratensis				38	1	1		43	7			**90**	Meadow Pipit
Anthus cervinus				86	2			173				**261**	Red-throated Pipit
Anthus rubescens				2					1			**3**	Buff-bellied Pipit
Anthus spinoletta				80	4			20	15			**119**	Water Pipit
Motacilla flava		4		95	23		1	55	41		3	**222**	Yellow Wagtail
Motacilla citreola		1		4	4		1					**10**	Citrine Wagtail
Motacilla cinerea				1	2				2			**5**	Grey Wagtail

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Motacilla alba				10	11	1	26	10	17	1	3	**79**	White Wagtail
Pycnonotus xanthopygos	2	75	13	254	100	250	221	49	202	343	349	**1858**	White-spectacled Bulbul
Troglodytes troglodytes	2	1		2	1	2	1					**9**	Wren
Prunella modularis				1		6	1		4			**12**	Dunnock
Cercotrichas podobe											1	**1**	Black Bush Robin
Cercotrichas galactotes				9				34	29	27	25	**124**	Rufous Bush Robin
Erithacus rubecula	1	27	12	22	80	163	159	62	74	55	11	**666**	Robin
Irania gutturalis	1											**1**	White-throated Robin
Luscinia luscinia		31		6	13	211	30	24	67	11	29	**422**	Thrush Nightingale
Luscinia megarhynchos		4	1	1	11	66	36	19	46	37	19	**240**	Nightingale
Luscinia svecica		424		444	133	10	124	185	218	94	451	**2083**	Bluethroat
Phoenicurus ochruros	2	1			3	5	5	9	46	3		**74**	Black Redstart
Phoenicurus phoenicurus		9		4	3	282	207	57	175	10	104	**851**	Redstart
Cercomela melanura									17	27	5	**49**	Blackstart
Saxicola rubetra		13		20	4	7	12	3	18		15	**92**	Whinchat
Saxicola rubicola		11		33	25	15	37	23	29	13		**186**	Stonechat
Saxicola maurus		4		8	2				2	3	4	**23**	Eastern Stonechat
Oenanthe isabellina		1		38			1		5			**45**	Isabelline Wheatear
Oenanthe oenanthe					2		1	4	2			**9**	Wheatear
Oenanthe hispanica	2					3	5	121	3		2	**136**	Black-eared Wheatear
Oenanthe finschii								1				**1**	Finsch's Wheatear

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Oenanthe lugens								1	16			**17**	Mourning Wheatear
Oenanthe leucopyga									1			**1**	White-crowned Wheatear
Monticola solitarius								1				**1**	Blue Rock Thrush
Turdus merula	14	11	7	30	51	143	127	24	20	20	3	**450**	Blackbird
Turdus philomelos		7	1	8	4	44	65	4	28	3	12	**176**	Song Thrush
Cettia cetti		176	6	53	152	7	115	29	20	57	3	**618**	Cetti's Warbler
Cisticola juncidis		2		35								**37**	Zitting Cisticola
Scotocerca inquieta										3		**3**	Scrub Warbler
Prinia gracilis		95	12	197	118	18	154	148	81	177	55	**1055**	Graceful Prinia
Locustella naevia									1			**1**	Grasshoppers Warbler
Locustella fluviatilis		2				5		1	2		2	**12**	River Warbler
Locustella luscinioides		427		116	63		75	7	165	31	77	**961**	Savi's Warbler
Acrocephalus melanopogon		51		12	68		11		1	4	2	**149**	Moustached Warbler
Acrocephalus schoenobaenus		777	1	55	98	9	98	9	91	42	126	**1306**	Sedge Warbler
Acrocephalus palustris		73	1	46	25	18	24	2	21	13	27	**250**	Marsh Warbler
Acrocephalus scirpaceus		5527	7	309	913	129	1229	175	711	458	518	**9976**	Reed Warbler
Acrocephalus stentoreus		36	1	52	62	1	41	1		46		**240**	Clamorous Reed Warbler
Acrocephalus arundinaceus		685		23	62	7	94	6	57	52	13	**999**	Great Reed Warbler
Hippolais pallida	16	96	5	34	24	467	60	317	249	110	191	**1569**	Olivaceous Warbler
Hippolais languida				1			1					**2**	Upcher's Warbler
Hippolais olivetorum		1			2	102	9	4	9		4	**131**	Olive-tree Warbler

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Sylvia conspicillata						3						**3**	Spectacled Warbler
Sylvia cantillans						1		1	1		2	**5**	Subalpine Warbler
Sylvia mystacea											1	**1**	Menetries's Warbler
Sylvia melanocephala	1	7	5	28	75	179	416	38	53	63	94	**959**	Sardinian Warbler
Sylvia melanothorax										8		**8**	Cyprus Warbler
Sylvia rueppelli				1		7	6	12	22	2	32	**82**	Ruppell's Warbler
Sylvia nana									1			**1**	Asian Desert Warbler
Sylvia crassirostris	12	6		2	1	357	346	43	101	12	52	**932**	Orphean Warbler
Sylvia nisoria		4	1	1		120	12	8	25	7	32	**210**	Barred Warbler
Sylvia curruca	53	97	1	41	56	1773	1861	453	723	174	911	**6143**	Lesser Whitethroat
Sylvia communis	14	227	2	14	9	144	76	40	52	17	104	**699**	Whitethroat
Sylvia borin		48	2	10	12	223	95	20	331	87	296	**1124**	Garden Warbler
Sylvia atricapilla		495	30	222	232	3510	2442	714	2108	1336	1291	**12380**	Blackcap
Phylloscopus orientalis	5	4		4	2	75	37	22	42	5	125	**321**	Eastern Bonelli's Warbler
Phylloscopus sibilatrix		1			3	23	10	2	9		3	**51**	Wood Warbler
Phylloscopus trochilus		104		899	165	202	1172	764	1084	20	316	**4726**	Willow Warbler
Phylloscopus collybita	2	161	13	423	657	463	860	451	992	192	621	**4835**	Chffchaff
Phylloscopus inornatus									6			**6**	Yellow-browed Warbler
Phylloscopus nitidus									1			**1**	Green Warbler
Muscicapa striata	4	2	1	3	4	38	18	52	50	7	44	**223**	Spotted Flycatcher
Ficedula parva				1		2	1	1	8	2	2	**17**	Red-breasted Flycatcher

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Ficedula semitorquata						1			2			**3**	Semicollared Flycatcher
Ficedula albicollis						7	1	2	2	3	3	**18**	Collared Flycatcher
Ficedula hypoleuca						5		1			2	**8**	Pied Flycatcher
Turdoides squamiceps									24	165	21	**210**	Arabian Babbler
Parus lugubris	12											**12**	Sombre Tit
Parus major	9	2	7	78	62	141	101	54	9			**463**	Great Tit
Sitta neumayer	22											**22**	Rock Nuthatch
Remiz pendulinus		123		13	71	3	42	4	7	25	28	**316**	Penduline Tit
Nectarinia osea		1	10	114	32	74	115	61	51	7	15	**480**	Palestine Sunbird
Oriolus oriolus		1				1			31		25	**58**	Golden Oriole
Lanius isabellinus		3		2							1	**6**	Isabelline Shrike
Lanius collurio	10	122		42	6	49	65	35	86	9	331	**755**	Red-backed Shrike
Lanius minor				7		2	1	1	2		2	**15**	Lesser Grey Shrike
Lanius excubitor		4		48			3	6	7	6		**74**	Great Grey Shrike
Lanius senator	6	2		13		4	6	5	5		2	**43**	Woodchat Shrike
Lanius nubicus	10	15		19		105	77	46	139	17	157	**585**	Masked Shrike
Garrulus glandarius			1		9	16	35	12				**73**	Jay
Corvus monedula			1			2	6					**9**	Jackdaw
Corvus corone cornix									1			**1**	Hooded Crow
Acridotheres tristis							4					**4**	Common Myna
Acridotheres burmannicus							2					**2**	Vinous-breasted Starling

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Onychognathus tristramii									39	80	2	**121**	Tristram's Starling
Sturnus vulgaris				1		2						**3**	Starling
Sturnus roseus									1		1	**2**	Rose-coloured Starling
Passer domesticus	26	57	17	56	126	727	142	70	404	126	1033	**2784**	House Sparrow
Passer hispaniolensis		331		281	7		52	158	403	347	1126	**2705**	Spanish Sparrow
Passer moabiticus		12		628						1174	9	**1823**	Dead Sea Sparoow
Petronia petronia	2											**2**	Rock Sparrow
Lonchura malabarica				18						31	58	**107**	Indian Silverbill
Fringilla coelebs		26	1	25	9	153	364	19	13			**610**	Chaffinch
Fringilla montifringilla			4			4	13	4	3	1		**29**	Brambling
Serinus serinus						13	99					**112**	Serin
Serinus syriacus	265											**265**	Syrian Serin
Carduelis chloris	7	12	2	2	9	112	361	114	157	1		**777**	Greenfinch
Carduelis carduelis	83	97	2		16		47	4	1			**250**	Goldfinch
Carduelis spinus					1	29						**30**	Siskin
Carduelis cannabina	312					2	1		77	1		**393**	Linnet
Bucanetes githagineus									8			**8**	Trumpeter Finch
Rhodospiza obsoleta				8				17	48			**73**	Desert Finch
Rhodopechys sanguinea	1											**1**	Crimson-winged Finch
Carpodacus erythrinus		4							1		3	**8**	Common Rosefinch
Carpodacus synoicus									27	1		**28**	Sinai Rosefinch

	Hermon Mt.	Hula Valley and Golan Heights	Jezreel Valley and Galilee	Jordan Valley and Sea of Galilie	Mt. Carmel and Northern Coastal Plain	Central Mountain Region	Judean Plain and Central Coastal Plain	Northern Negev	Southern Negev	Northern Arava and Judean Desert	Eilat and Southern Arava	**Total**	
Coccothraustes coccothraustes					1	70	1	42	3		3	**120**	Hawfinch
Emberiza cia	142											**142**	Rock Bunting
Emberiza striolata										20		**20**	Striolated Bunting
Emberiza hortulana	1	15		110		14	37	12	11	10	1	**211**	Ortolan Bunting
Emberiza caesia	3	2			1	1	13	12	8	3	2	**45**	Cretzschmar's Bunting
Emberiza pusilla				1			1					**2**	Little Bunting
Emberiza schoeniclus		7		42	3		2		3			**57**	Reed Bunting
Emberiza melanocephala	8	1					1		1			**11**	Black-headed Bunting
Emberiza calandra				1		1		11	7			**20**	Corn Bunting