

# AWC Seminar 2017

## KWS (Kapar Waterbirds Survey) & AWC Kapar 2017

*By Chin Choong Liung*

*Coordinator, KWS 2015/16, 2016/17*

*Coordinator, AWC Selangor.*

## KWS 2016/17 & AWC Kapar 2017

- Kapar Power Station (KPS) ash ponds is the most important AWC site in Selangor.
- It was first identified as a prime waterbirds site by Asian Wetland Bureau, now Wetland International, back in 1988.
- AWC Kapar started since then, with counts usually in January.
- In 2008, for the 1<sup>st</sup> time, 12 months year round survey was carried out with the resulting 2008 report.
- In 2015, after a lapsed of 7 years, we decided it is time to do another 12 months survey (**KWS 2015/16**), from Apr15 to Mar16, to collect latest data to compare with 2008 report.
- In 2016, we did another one, **KWS 2016/17**, from **Aug16 to Jul17**, to supplement 2015/16 survey.
- **AWC Kapar 2017** was taken from the Jan17 count of 2016/17 survey.

## KPS (Kapar Power Station) Phase 2 ash pond



15/01/2017 08:29



## KPS ash ponds in the right condition & season



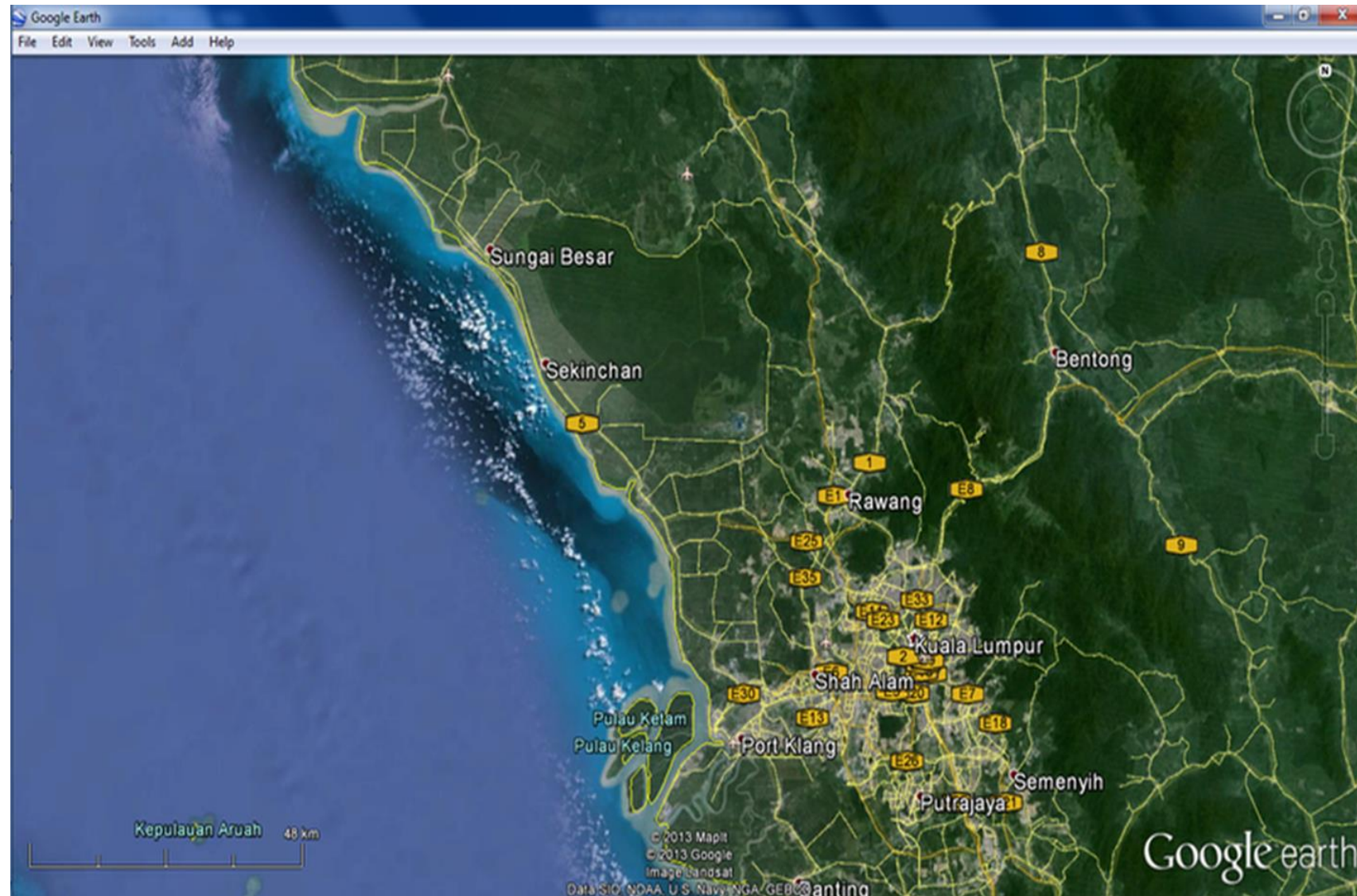
11/10/2015 16:29

# Why Kapar Power Station ash ponds??

- KPS is situated within North- central Selangor coast(NCSC), IBA MY011.
- NCSC consists of mudflats & remaining discontinuous mangroves forests, stretches for 110 km from estuary of Sg. Klang to Sungai Bernam (Selangor/Perak State border).
- It also includes several mangrove islands known as the Klang islands, providing rich feeding grounds for waterbirds **during low tides**.
- And during high tides, these birds need a safe place to rest & KPS ash ponds, located in within, provided just that.
- KPS & NCSC are interrelated, one cannot do without the other and both need to be conserved.
- That is why **AWC Selangor**, other than on KPS, also **concentrates on sites along NCSC**.



# North- central Selangor coast



## The survey/ count: It's men vs birds







11/10/2015 17:41

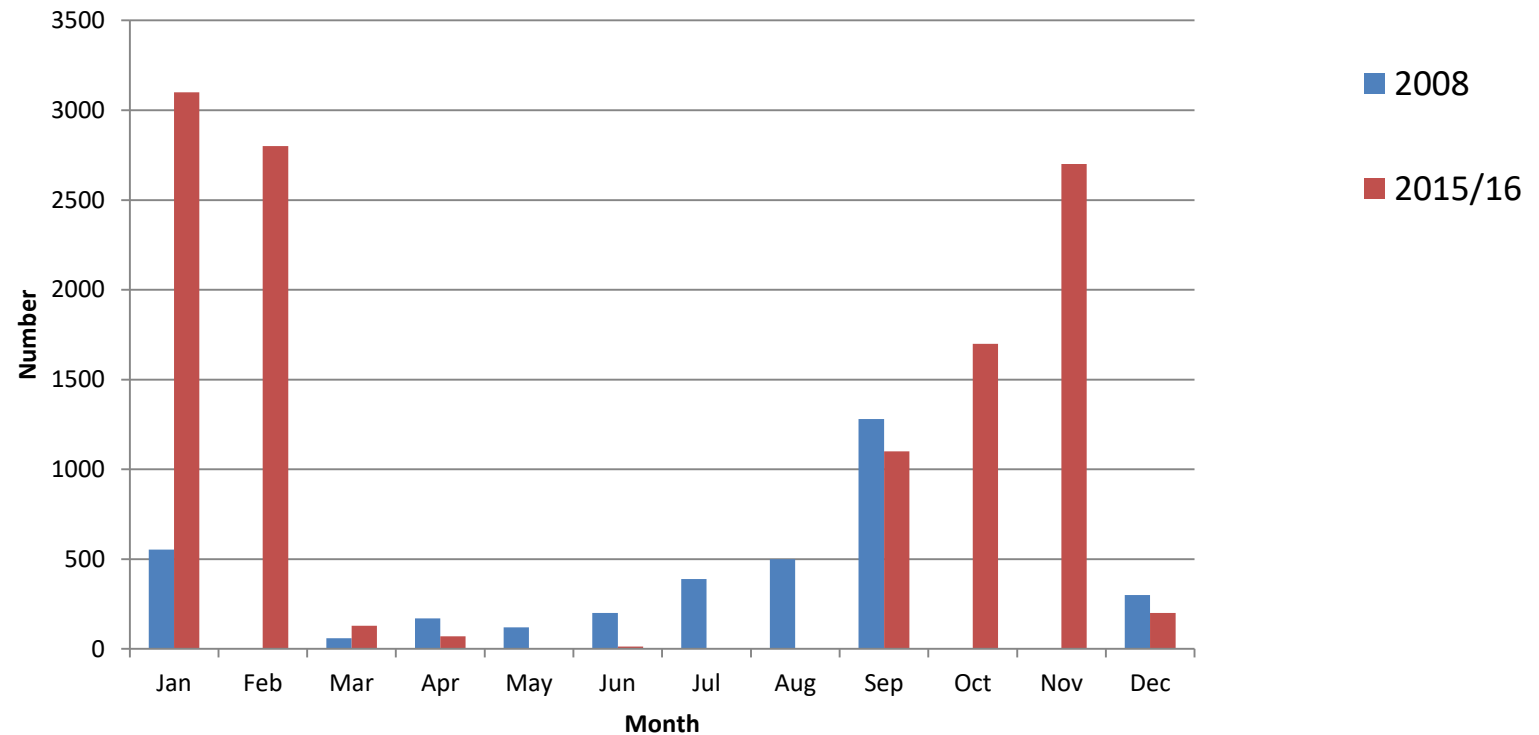


# KWS 2015/16: The results

# Breakdown of total numbers of wader species counted in 2015/16.

Month/ year	Jan 16	Feb 16	Mar 16	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	Nov 15	Dec 15
Date	10th	28th	27th	19th	17th	14th	12th	23rd	13th	11th	14th	13th
High Tide level(m)/ time (hr)	4.7/1808	4.4/0833	4.6/0737	5.3/1815	5.0/1711	4.6/1603	4.3/1447	4.0/1047	4.6/1756	4.3/1705	4.7/1903	4.7/1854
Pacific Golden Plover	23		1	13	1				3	30		
Black- bellied/ Grey Plover	360	37	70	20	42	18	20		217	169	400	
Little Ringed Plover												
Kentish Plover				1						1		1
Lesser Sand Plover	6722	810	3200	21	800	800	0	2002	5320	3200	6520	2520
Greater Sand Plover	1680	202	800	14	200	200	0	500	1330	800	260	630
Asian Dowitcher	4	2		8	3	1			15	10	16	3
Black- tailed Godwit	2000	107	150	100	125	120		35	400	841	1210	583
Bar- tailed Godwit	1150	400	428	25	8	4		2	403	388	3900	293
Whimbrel	1013	603	766	1000	50	193	29	505	850	1190	900	299
Eurasian Curlew	4000	2700	282	100	348	435	931	750	3500	3200	3000	500
Far Eastern Curlew		2			1	1		1			1	
Common Redshank	2100	271	1170	2620	136	37		321	3000	250	1020	700
Marsh Sandpiper	477	347	411	11				11	309	230	10	
Common Greenshank	414	115	61	30	4	14	4	112	214	183	180	33
Nordmann's/ Spotted Greenshank	35	9		6		1				1	24	4
Terek Sandpiper	400	10		234	251	41	10	45	350	400	450	42
Common Sandpiper	2			1				2	1	1	7	1
Ruddy Turnstone	3			8	20	28	1	3		8	1	1
Great Knot	3100	2800	130	70	1	13		5	1100	1700	2700	200
Red Knot	13	31	5	19	9			3	2		22	2
Little Stint				1							3	
Red- necked Stint	469	1850	260		283	563		181	800	600	1981	
Sharp-tailed Sandpiper										1		
Curlew Sandpiper	1031	333	274	40	50	38		145	20	700	500	271
Broad-billed Sandpiper	10	17	3		1			2	1	10	40	15
Ruff										1		
Total	25006	10646	8011	4342	2333	2507	995	4625	17835	13914	23145	6098

# Species account: Great Knot



Flyway population: 290,000(1%= 2,900).

IUCN Red List: EN.

Status: PM & WV. Fairly common but in small numbers.

Shows **marked increase in winter population** with **Jan16(3100)**, Feb16(2800) compared to Dec08(300), **Jan08(553)**.

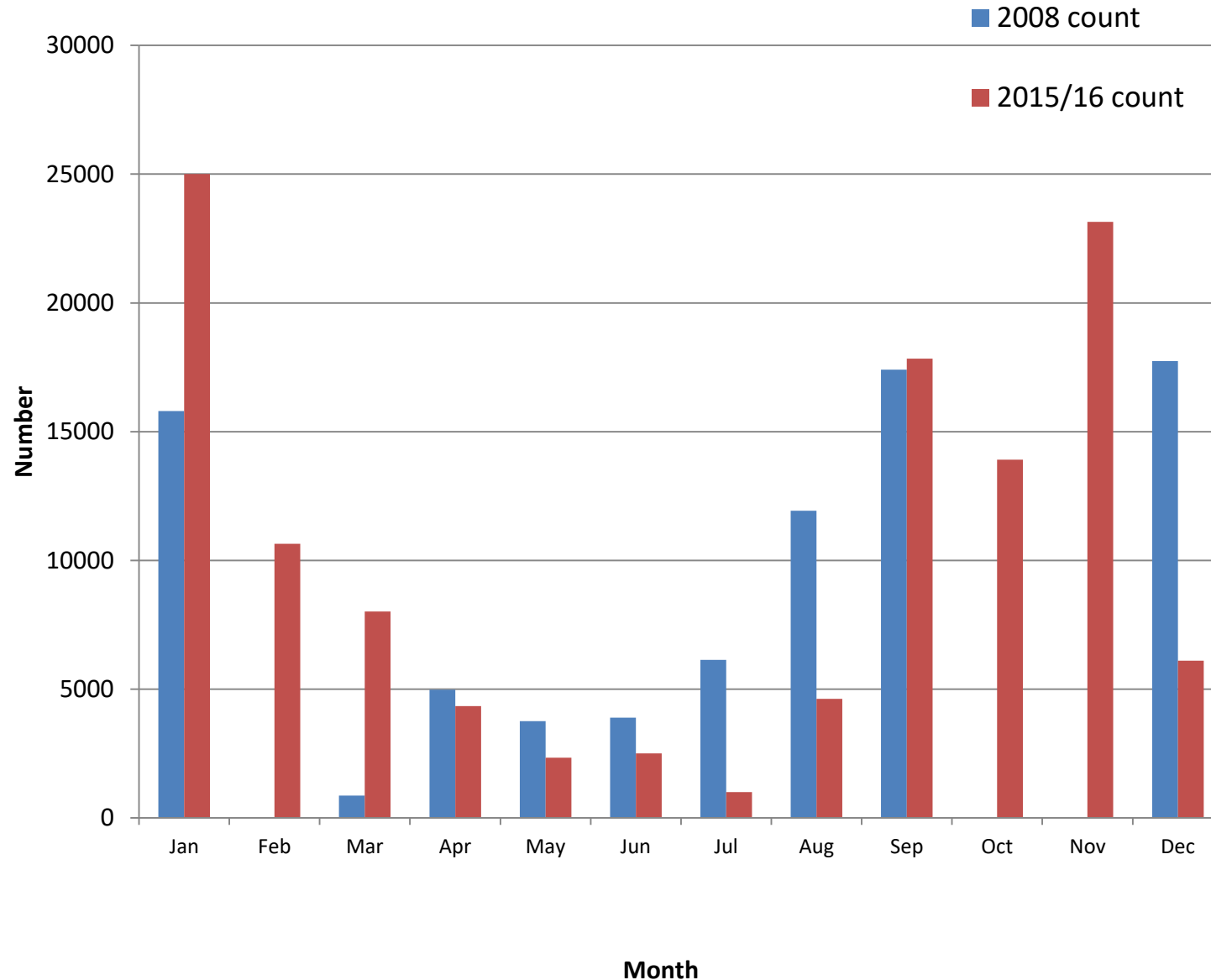
However, very low counts of summering birds of May15(1), Jun15(13) compared to May08(120), Jun08(200).

Autumn passage birds remained constant with Sep15(1100) compared to Sep08(1280).

**More than 1% of flyway population was counted in Jan16(1%).**



## Total Overall Numbers of waders counted/ month:



### Wintering Population

comparison by comparing the total birds counted in the months of **Dec/ Jan**, using the highest figures from the two surveys.

We have **17743 birds (Dec08)** against **25006 (Jan16)**, showing a marked increase of about **41% for 2015/16**.

## Comparison of wintering population in 2008 & 2015/16.

No	Species/ Trend	Max. count recorded in Dec/Jan 2008	Max. count recorded in Dec/Jan 2015/16
	Marked Increase:		
1	Black- tailed Godwit	174	2000
2	Great Knot	553	3100
3	Curlew Sandpiper	400	1031
4	Marsh Sandpiper	163	477
	Increase:		
1	Lesser Sand- Plover	4000	6722
2	Bar- tailed Godwit	614	1150
3	Terek Sandpiper	300	400
4	Caspian Tern	26	44
5	Red Knot	1	13
6	Pacific Golden Plover	3	23
	Stable:		
1	Whimbrel	1081	1013
2	Common Greenshank	350	414
3	Black- bellied/ Grey Plover	318	360
4	Nordmann's/ Spotted Greenshank	35	35
5	Kentish Plover	2	1
6	Spoon- billed Sandpiper	1	*1
7	Far Eastern Curlew	0	0
8	Little Stint	0	0
9	Common Sandpiper	2	2
10	Ruddy Turnstone	7	3
11	Asian Dowitcher	0	4
	Decline:		
1	Eurasian Curlew	4900	4000
2	Common Redshank	3214	2100
3	Greater Sand- plover	2500	1680
4	Gull- billed Tern	520	437
5	Broad- billed Sandpiper	25	15
	Marked Decline:		
1	Red- necked Stint	2500	469
2	Little Tern	170	0
3	White- winged Tern	150	0

Out of **29 species**,

**10 species** shown **increasing trend**  
(4 species marked increase, 6 species increase),

**8 species in decline** (3 marked decline, 5 decline) with remaining

**11 species** showing **stable trend**.

## KWS 2015/16 shown that KPS met following Ramsars' criteria:

- **Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.**
- KPS supports 4 globally threatened species:
  - i) Spoon-billed Sandpiper (CR, Critically endangered).
  - ii) Far Eastern Curlew (EN, Endangered).
  - iii) Nordmann's/ Spotted Greenshank (EN, Endangered).
  - iv) Great Knot (EN, Endangered).
- **Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.**
- KPS meet these figures during KWS 2015/16 in following months:
  - i) Nov. 2015: Total of 23,568 birds counted.
  - ii) Jan. 2016: Total of 25,507 birds counted.



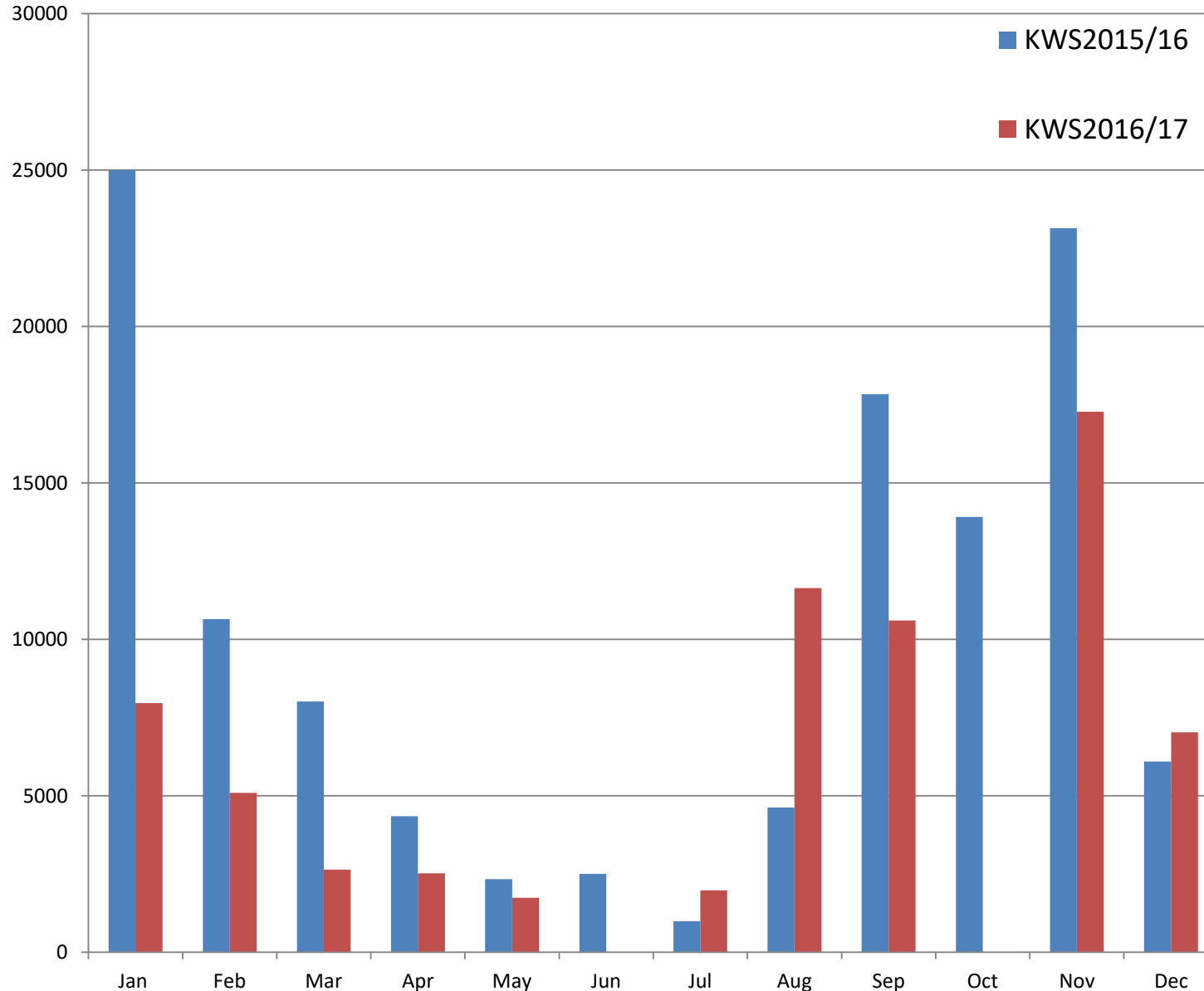
- **Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbirds.**

- KPS met this requirement for the following species of waterbirds (refer to individual species account for details):

- i) Lesser Sand- plover
- ii) Greater Sand- plover
- iii) Black- tailed Godwit
- iv) Bar- tailed Godwit
- v) Whimbrel
- vi) Eurasian Curlew
- vii) Nordmann's/ Spotted Greenshank
- viii) Common Redshank
- ix) Great Knot

# KWS 2016/17: The results

# Total numbers of waders counted/ month

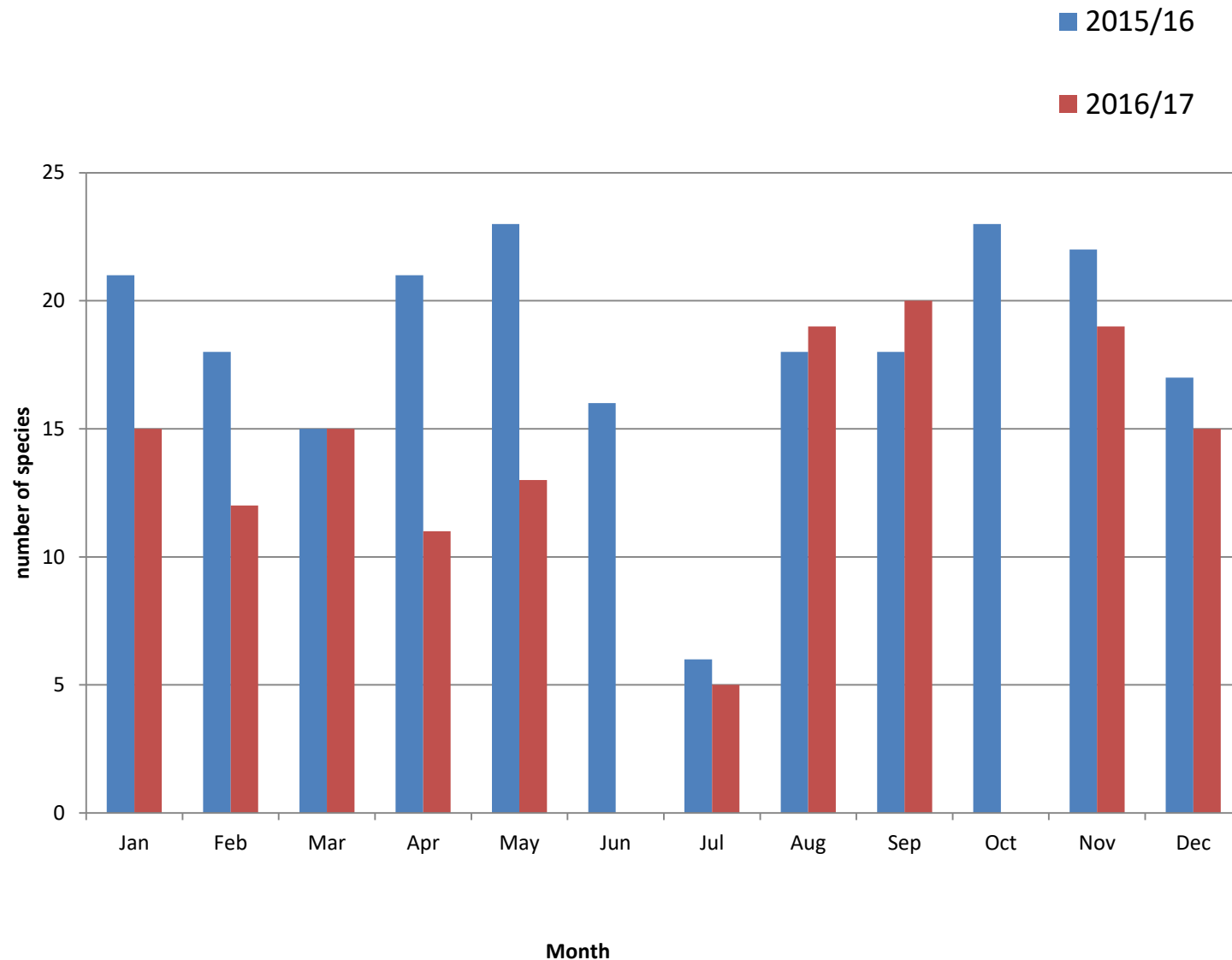


**KWS2016/17** started very promisingly in Aug16 with a total wader count of 11641 birds (vs Aug15, 4625 birds), and good counts in the remaining southward migration months (Sep16, 10599; Nov16, 17277).

However, disappointing figures were registered for **wintering population** in the months of **Jan17 (7959)** against **Jan16 (25006)**, a **reduction of 68%** from corresponding months in 2016.



## Wader Species Diversity throughout the year (in comparison with KWS 2015/16):



In **KWS 2015/16**, except for month of July, **11 months** were counted with **15/ above species** with **5 months above 20 species**.

For **KWS 2016/17**, only **6 months** with **15 species/ above** counted with only **1 month touching 20 species**.

In term of **species richness**, in the space of only one year, KPS ash ponds have degraded markedly.

# Results analysis:

- On the surface, **KWS 2015/16** painted quite a rosy picture for KPS ash ponds and its occupants.
- Comparing to 2008 survey, the **wintering population** of waders in KPS **increased by about 41% from 17,743 to 25006 birds.**
- And out of the **29 species** which made up this wintering population, **10 species show increasing trend, 11 species are stable and only 8 species in decline.**
- However, globally, wader species all over the world are generally in decline.
- **So how come KPS figures showing the opposite trend?**
- And then **in the space of only 1 year, KWS 2016/17** shown such disappointing figures for wintering population in the months of **Jan17 (7959)** against **Jan16 (25006)**, a **reduction of 68%** from corresponding months in 2016.
- **What are happening here??**

Dec. 2016: Plenty of activities around ash ponds.





KPS ash pond not in ideal condition



Bunded & divided into smaller ponds.





Counting with machinery working right behind.



The small Still Pond back in Jan15.





Mar17: Still Pond no more.





# The old Phase 1 ash pond



13/08/2017 10:40



South end of Phase 2 ash pond, the only good one left.





## Hypothesis for KWS 2016/17 bad result:

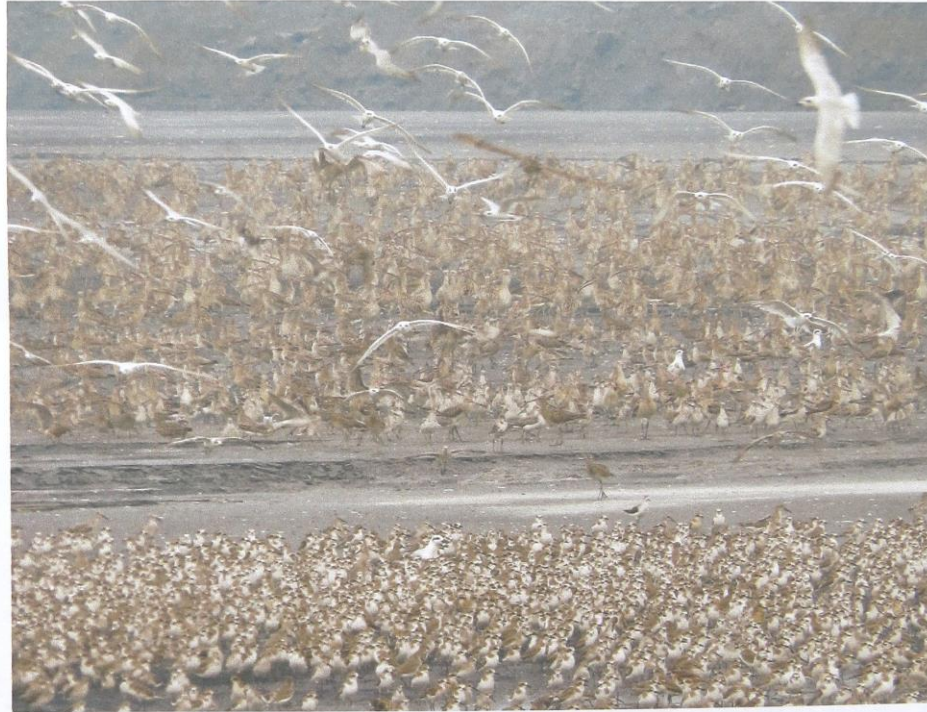
- From the pictures shown above,
- We suspect the poor counts for KWS 2016/17 were **not an accurate representation of birds wintering around KPS,**
- But **simply birds not making their way to the site,** due to disturbances.
- Loss of the Still Pond and the major excavating works all over the Phase 2 ash ponds were simply too much for the birds to tolerate.
- However this survey does warned us that we can't be complacent,
- In just 1 year, KPS has gone '**various Ramsar's criteria compliance' no more.**

## Hypothesis for KWS 2015/16 good result:

- Globally, wader species all over the world are generally in decline.
- **So how come KPS figures showing the opposite trend????**
- We believe more and more birds along NCSC coast are making their way into KPS ash ponds, resulting the increased in numbers we observed in KWS 2015/16.
- The increased of bird population in KPS is **not a result of true increase of bird population** but rather the **forced congregation of birds in the remaining suitable roosting site.**
- This made KPS ash ponds, an already recognized prime roost site way back in the eighties probably now the ultimate stronghold for this population of waders and **its conservation even more crucial than ever before.**

- It cannot be emphasized enough that **KPS ash ponds and NCSC are interrelated.**
- One cannot do without the other.
- The conservation efforts must not only be on KPS ash ponds but **NCSC IBA as a whole.**
- Then only the future of these magnificent birds is truly secured.

A picture paints a thousand birds



## **KAPAR WATERBIRDS SURVEY 2015/16**

**& Kapar Waterbirds Survey 2016/17 (a supplementary)**

13/10/2017 08:46

*Prepared by Chin Choong Liung*

*Reviewed by Khoo Swee Seng*









18/12/2016 08:21









11/10/2015 16:29

The End.

Thank you.