Zug Family Preview

Since the debut of **CapZug** (capture-zugzwang) last year, a number of interesting developments have transpired behind-the-scenes. At Arno Tüngler's urging, several composers including Geoff Foster, Dieter Müller, Cornel Pacurar, and yours truly began assembling variant samples such as **MateZug**, **StalemateZug**, and **CheckZug**. The concept is the same for all of these "Zug Family" relatives:

The state of X-Zugzwang is reached when the side on move:

- has one or more legal moves which achieve X; and
- has no legal moves that fail to achieve X; and
- is not is check

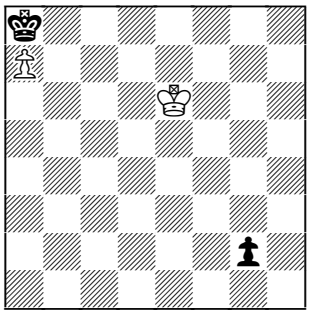
Readers may recall that we held a Notation Contest as part of the Good Zug Tourney (pg. 48) in October. As judge, I chose the notation **x=** to represent CapZug due to its logical similarity to stalemate. But, Arno noted a curious dilemma: if **x=** means CapZug, and == means double-stalemate, then what to use for StalemateZug??

It then became crystal clear: **x=** must be replaced by **xz**! Using the lower-case "z" across-the-board gives a true "Zug Family" portfolio of stipulations: CapZug (**xz**), MateZug (**#z**), StalemateZug (**=z**) and CheckZug (**+z**). Other variants may be added in due course. Note: Geoffrey Caveney suggested **xz** originally, for the contest.

Arno is preparing a more comprehensive article on this topic, to appear later this year. However, given that **x=** has already been cited in a number of venues, we agreed that this "preview" should be brought forth ASAP, so that the best notation for CapZug (**xz**) can be used going forward. **We urge editors and publishers to do so**.

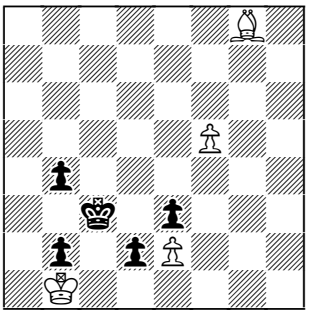
Below are some tasty tidbits from our numerous "Zug Family" discussions. Solutions on the next page. You'll also find some meatier Zug siblings just posted on the chessproblems.ca 2011 Series Tourney. Enjoy!

ZF1: Arno Tüngler
original



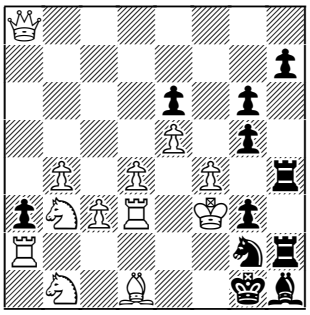
h+z4 (2+2) ***C+***

ZF2: Dan Meinking
original



h=z5 (4+5) ***C+***

ZF3: Markus Ott, Prize,
feenschach 1980 *(version DM)*



ser-hxz153 (12+11) C?

--Dan Meinking / Cincinnati, OH (USA) / April 2011

Solutions to Zug Family Preview problems

ZF1: 1.Kb7 a8R 2.g1Q Ra6 3.Qa7 Kd7 4.Ka8+ Kc8 **+z** [CheckZug]

Black is not in check, and would be compelled to give check were he to move. Thus, the aim of **CheckZug** has been achieved.

ZF2: 1.d1B Bb3! (tempo) 2.Bxb3 f6 3.Bg8 f7 4.Kb3 fxg8B+ (Phoenix) 5.Ka3 Bb3 **=z** [StalemateZug]

Black is not in check, and would be compelled to deliver stalemate were he to move. Thus, the aim of **StalemateZug** has been achieved.

ZF3: 1.Rg4 2.Rh6 6.Kh5 8.Rh2 10.Kh3 12.Rg4 24.Kxd3 36.Kh3 38.Rh6 40.Kh5 42.Rg4 49.Kxd1 74.Kxb3 101.Kxb1 128.Kxc3 129.Kxd4 141.Kh3 143.Rh6 145.Kh5 147.Rg4 150.Kh2 151.Rh3 153.h4 Qa7 **xz** [CapZug]

Black is not in check, and would be compelled to capture were he to move. Thus, the aim of **CapZug** has been achieved. It should be emphasized that this is **not** an original. It is presented here "for the record", to demonstrate how the famous Ott series-helpstalemate matrix could be adapted for CapZug.

I posted the following analysis on Cornel's private forums to demonstrate (we hope) soundness:

Analysis:

The bPa3 is needed to stop bKh3/Rxg2 traps. Since bPa3 closes the Ra2-a4 guard, wQa8 is needed to guard a4, preventing the dual 74.Kxb3 75.Ka4/Kc4 etc. Note that +bPa4 will not suffice as that gives black another set-capture, allowing g5xf4 ... Rxd4 (or Rxd1) etc. to be played (Pa4xb3 will be forced at the end).

Since we know that bK must end at h2 (pinning bSg2), White's only possible finishing moves are Qa7 or Rd1, guarding the g1 flight. Given that, it seems easy to prove that **g5xf4 can never be played.** Four scenarios to consider:

(1) If Rxd4 or Rxd1 is played (leaving wPe5 alone), then black cannot have a forced-capture in any final position.

(2) If Rxe5 and Rxd4 is played, then bPe6 will have nowhere to 'rest' (not to mention the lack of forced-capture dilemma).

(3) Let's try Rxe5 and Rxd1, letting bPe6 capture and 'rest' on d4. That looks promising, but after the eventual Rd3-d1 (to guard g1), the bPd4 is no longer "zugged".

(4) The final attempt is playing Rxe5, then letting bPe6 capture on d4 and c3. The diagram below can be reached in just 11 moves:

schema:

(8 + 11)

White could finish with Qa7 or Rd1. But, even with 142 moves to spare, Black has no way to promote the c3P and leave himself with a forced capture.

So... it appears that only the intended solution will work. Am I missing anything?

Note that wPe5/bPe6 could also be wPd5/wPe5 or wPd5/wPe6. The wPb4 adds one more move to the bK's final 'return' (130.Kc4 131.Kb5 etc.) to stretch this to exactl 153 moves.